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SEPTEMBER • 1940 • VOL. 8 • NO. 9

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MODERN LITHOGRAPHY

LITHOGRAPHED IN THE INTERESTS OF LITHOGRAPHERS EVERYWHERE

THE COVER

Living Lithography on exhibition at the Philadelphia Art Alliance during the month of October contains many samples of chinaware with decalcomania designs. This one designed by Rockewell Kent for "Our America" series is an outstanding example.

September, 1940
Volume 8 No. 9

N.A.P.L. MEETS IN CHICAGO to discuss Wages and Hours, National Defense and Hourly Production Rates, which were recently adopted. (*Page* 28)

J. S. MERTLE, TOO LONG missing from these pages returns this month with a concise, but detailed review of the latest developments in the photolithographic field. What Mertle says can pretty well be taken as the last word. (*Page* 32)

THE PHOTOGRAPHIC INDUSTRY has played a major share in the development of the photolithographic industry to its present state. New and faster emulsions, improved formulas and the like brought forward by the research experts in the photographic field have given us better originals, hence in an indirect way, better reproductions. (*Page* 35)

THE STORY OF LITHOGRAPHY has been in the making since that memorable day in 1796 when Alois Senefelder made out the famous laundry list (What collector's item that laundry list would be today!), but the lithographic industry has only lately grown self-possessed and articulate enough to tell the world about it. Certainly the world comes in for a lot of "telling" (much-needed, too, if you ask us) at Philadelphia this month where the Living Lithography show is playing to standees. (*Page* 39)

I. H. SAYRE, THE STORY GOES, knows more about platemaking than any two men in the industry. (Did you know she was a "she"?) Anyway, she's written a book about it and is starting on another. Perhaps this is the first chapter. (*Page* 43)

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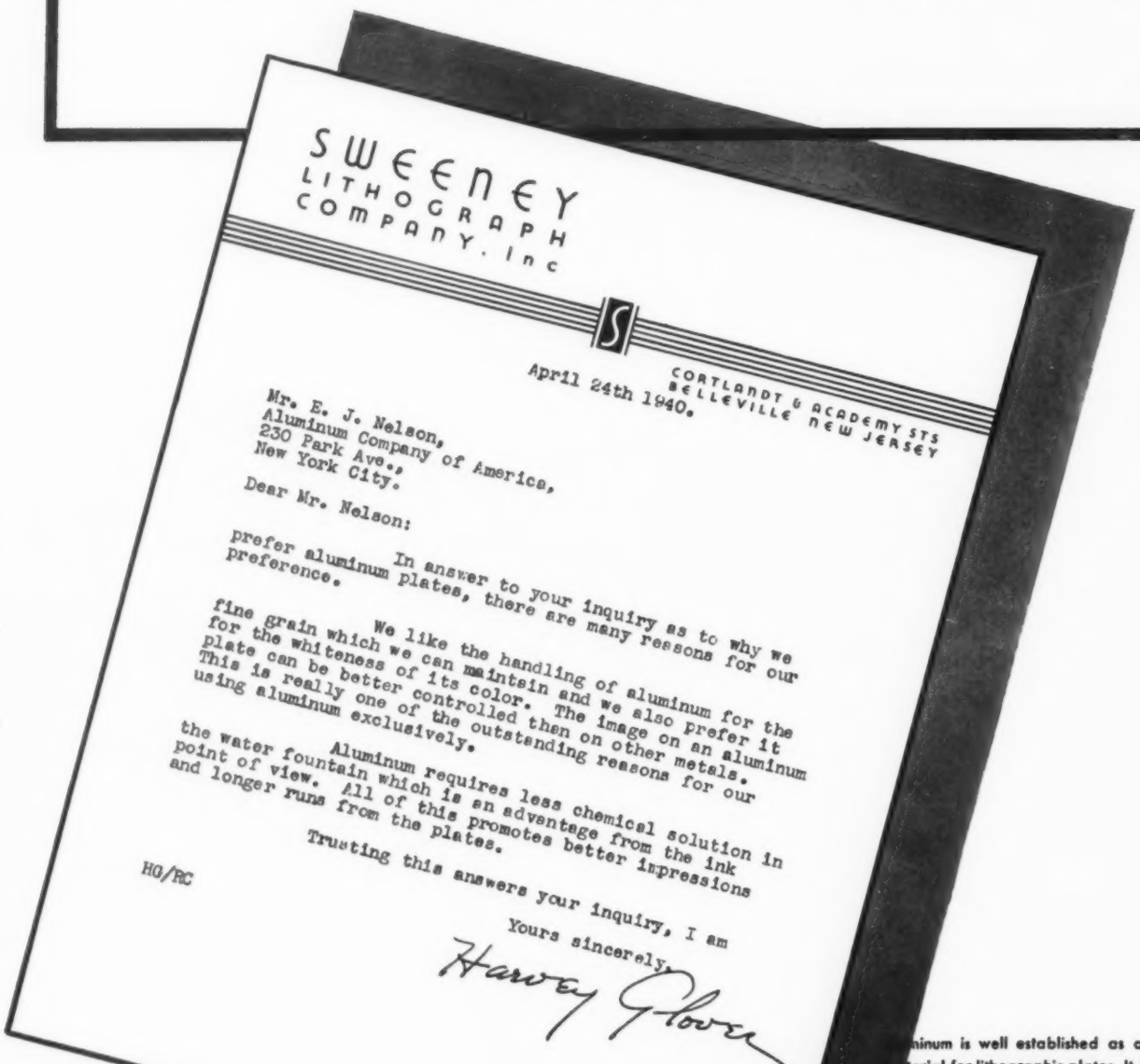

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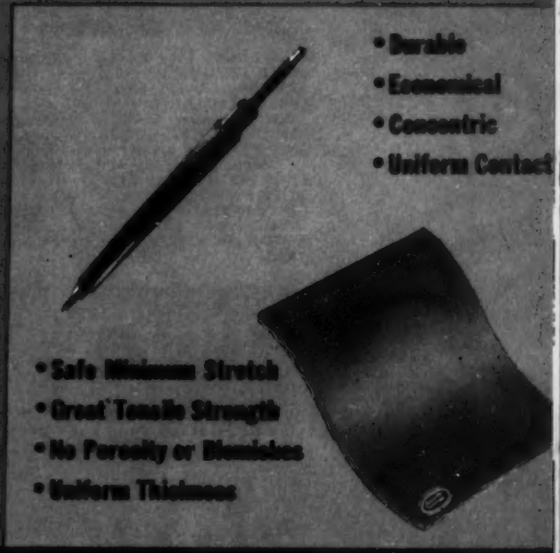

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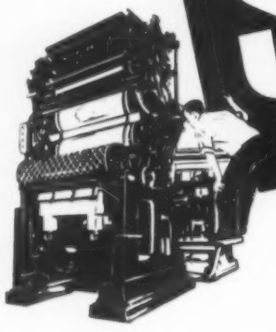

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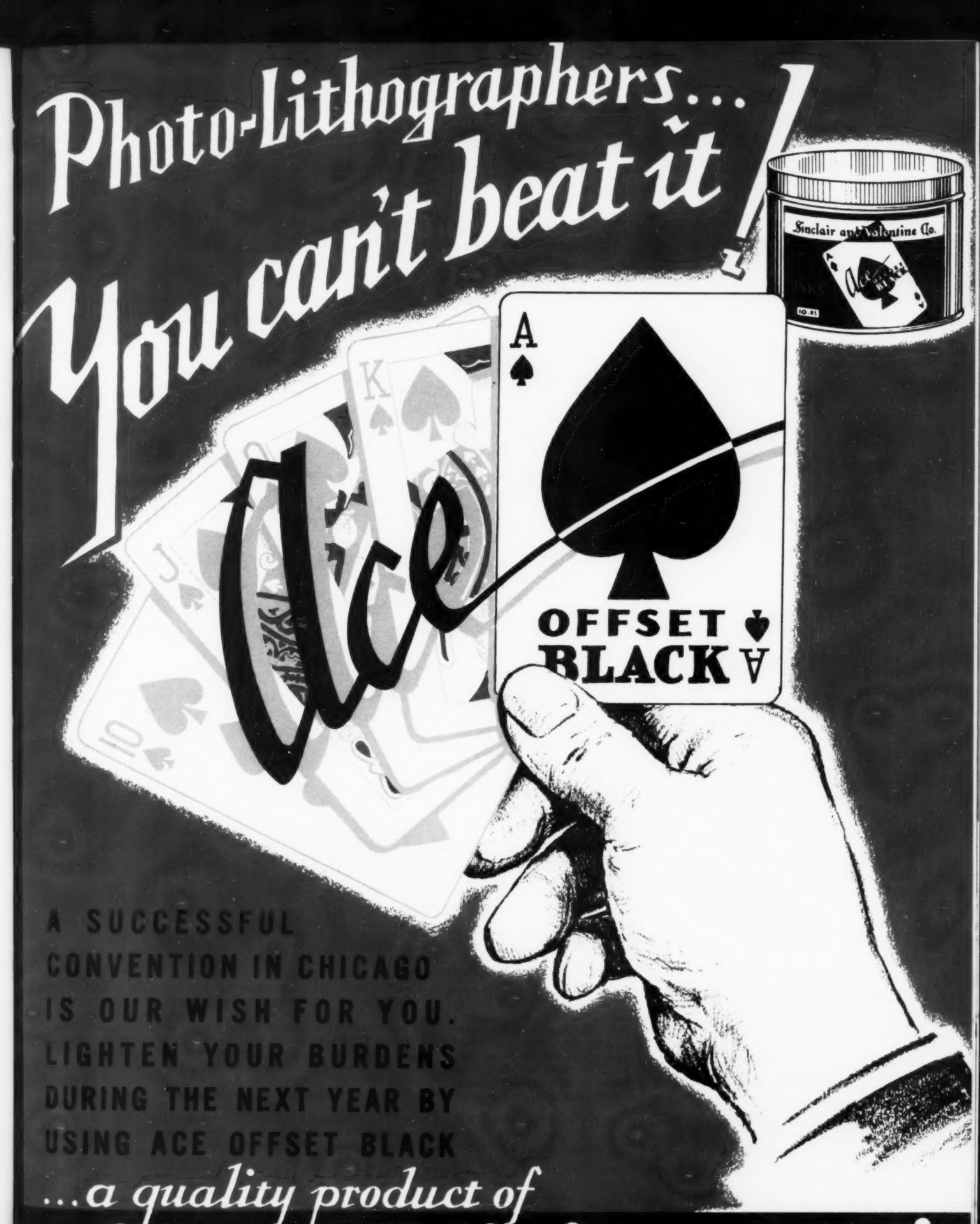

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WHEN IT HITS THE SPOT

that's

Could there be any better "proof of the pudding" than the following list of articles from the past twelve issues of MODERN LITHOGRAPHY? They hit the spot with our readers:

ON SELLING:

The Tobacco Market, by L. Rohe Walter—Nov. '39; *Maps,* by Richard Falconer—Dec. '39; *War and Lithography,* by Richard Roley—Oct. '39; *Travel, 1940 Style*—Jan. '40; *Poster Stamps*—Jan. '40; *The Research Market,* by Hugh Dobell—Feb. '40; *The Glamour Market,* by Preston Mack—Mar. '40; *The School Market,* by George Rumage—Apr. '40, and Elmer J. Anderson, June '40; *New Forms in Display Design,* by Richard Eaton Paige—Apr. '40; *Before You Go After That House Magazine Business,* by Robert Newcomb—May '40; *Point-of-Purchase Advertising,* by H. P. Simons—June '40; *Litho Media Polls Buyer Reaction,* by Robert P. Inglis—July, '40; *The Meat Packing Industry*—Aug. '40; *What About South America?*—Aug. '40; *Give Them Ideas*—Aug. '40.

ON MANAGEMENT:

Why Not Try Conciliation? by Paul Heideke—Sept. '39; *How to Establish a Printed Price List,* by Latham B. Myers—Sept. '39; *The Value of Comparative Cost Ratios*—Oct. '39; *Lithography as a Career,* by Maurice Saunders—Dec. '39; *Mark-ups,* by Stanley White—Dec. '39; *We Chose Lithography for Careers,* by Messrs. Marsh and Seiser—Jan. '40; *European Conditions Indicate Trend of Paper Prices Upward,* by John D. Zink—May '40; *Fifty Years of Phoenix Metal Caps,* by E. J. Ryan—June '40; *New Competition for Black and White?* by Ralph Alsobrook—July '40; *Darkroomitis*—Aug. '40.

ON PRODUCTION:

Care of the Offset Blanket, by John Stark—Sept. '39; *Color Control,* by Norman Jowitt—Sept. '39; *Color Reproduction by Photolithography,* by Messrs. Hurst, Falconer and McMaster—Oct. '39; *The New Gevaert Method for Color Correction,* by Messrs. Hoeppner and Paschel—Oct. '39; *Monel Litho Plates,* R. T. Barnes, Jr.—Nov. '39; *Color in Theory and Practice,* by Howard D. Lester—Nov. '39; *Color Filters and Emulsions,* by Herbert P. Paschel—Jan. '40; *The Measurement of Ink Consistency,* by Robert F. Reed—Jan. '40; *Whither Deep-Etch?* by Kenneth W. Martin—Jan. '40; *Gutenberg, Father of Printing,* by Frederic W. Goudy—Feb. '40; *A Coverage Table for Litho Inks,* by George Cramer—Feb. '40; *Design in Metal Lithography,* by W. T. Misuraca—Feb. '40; *Variables in Color Reproduction,* by Herbert P. Paschel—Mar. '40; *Spraying Printed Sheets,* by Fred A. Hacker—Mar. '40; *Paper Control,* by Frank R. Sloan—Mar. '40; *Platemaking Procedure,* by E. Bruyning—Apr. '40; *Characteristics of Offset Papers,* by Edson S. Dunbar—Apr. '40; *Having Drying Troubles?* by George Cramer—Apr. '40; *The Hartford Newsdaily Is Fast Leaving Its Troubles Behind*—May '40; *The Multi-Color Press,* by Harry Porter—May '40; *Are You Sure It's the Paper?* by C. W. Latham—May '40; *The Chemistry of Coating Solutions and Etches,* by E. Bruyning—June '40; *Quality Type Reproduction Begins with the Repro Proof,* by George T. Lord—June '40; *The Flexichrome Process,* by Herbert P. Paschel—July '40; *Setting the Inking Rollers,* by John Stark—July '40; *Synthetic Rubber Assumes a New Role in Industry,* by William G. Goodwin—July '40; *Control Your Variables!* by Herbert P. Paschel—Aug. '40; *Good Damping Essential,* by John Stark—Aug. '40.

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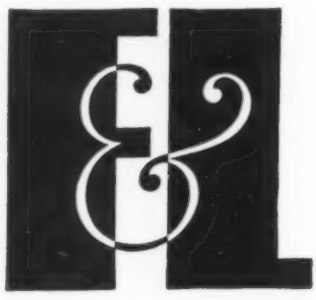

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of the

NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

PALMER HOUSE, CHICAGO, SEPTEMBER 26-28

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A list of speakers who are students of your problems . . . and who know how to speak your language!

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The Share-Your-Knowledge technical discussions . . . down-to-earth analyses of lithographic technical problems led by experts.

The Annual NAPL Convention Banquet . . . a festive affair of frolic and fun where lithographers and their friends renew old friendships and make new ones . . . a get-together of all those interested in promoting goodwill and maintaining high competitive standards in the industry.

Suppliers' and Equipment Manufacturers' Exhibits . . . a review of the latest developments in lithographic equipment and supplies for the lithographer will be displayed throughout the convention.

A TIME FOR RENEWING OLD FRIENDSHIPS AND MAKING NEW ONES

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NATIONAL ASSOCIATION OF PHOTO-LITHOGRAPHERS

1776 BROADWAY NEW YORK, N. Y.

"Merrily, Merrily WE GO BOWLING ALONG"

CONVENTIONS may come, and conventions may go (and may they never stop coming!) but Roberts & Porter goes on forever!

That's the way we feel on this, the eve of another National Association of Photo-Lithographers' Convention. We're in a congratulatory mood. We congratulate the N.A.P.L. for the invaluable work it has done in its eight years of existence, and, unabashedly, we congratulate ourselves for being a part of the industry. For, truth to tell, we could never have got along without it. It is because of the whole-hearted reception you have given our products that we are able to be in an expansive, congratulatory mood. When we said Roberts & Porter products were dependable, you took us at our word . . . When we said Roberts & Porter products were long-lived, you believed us. When we said Roberts & Porter products would help reduce your maintenance and operating costs, you believed it. You have believed in the integrity of our products from the beginning, because you have believed in us. For that we are grateful. It has been this spirit of mutual cooperation, your faith in us, and our resolve never to let you down, that has made us what we are today: a firm with a reputation for consistent, top-notch performance in the lithographic industry, whatever the need, whatever the product. It is on faith like yours that this nation was built. It is on faith like yours that its future depends.

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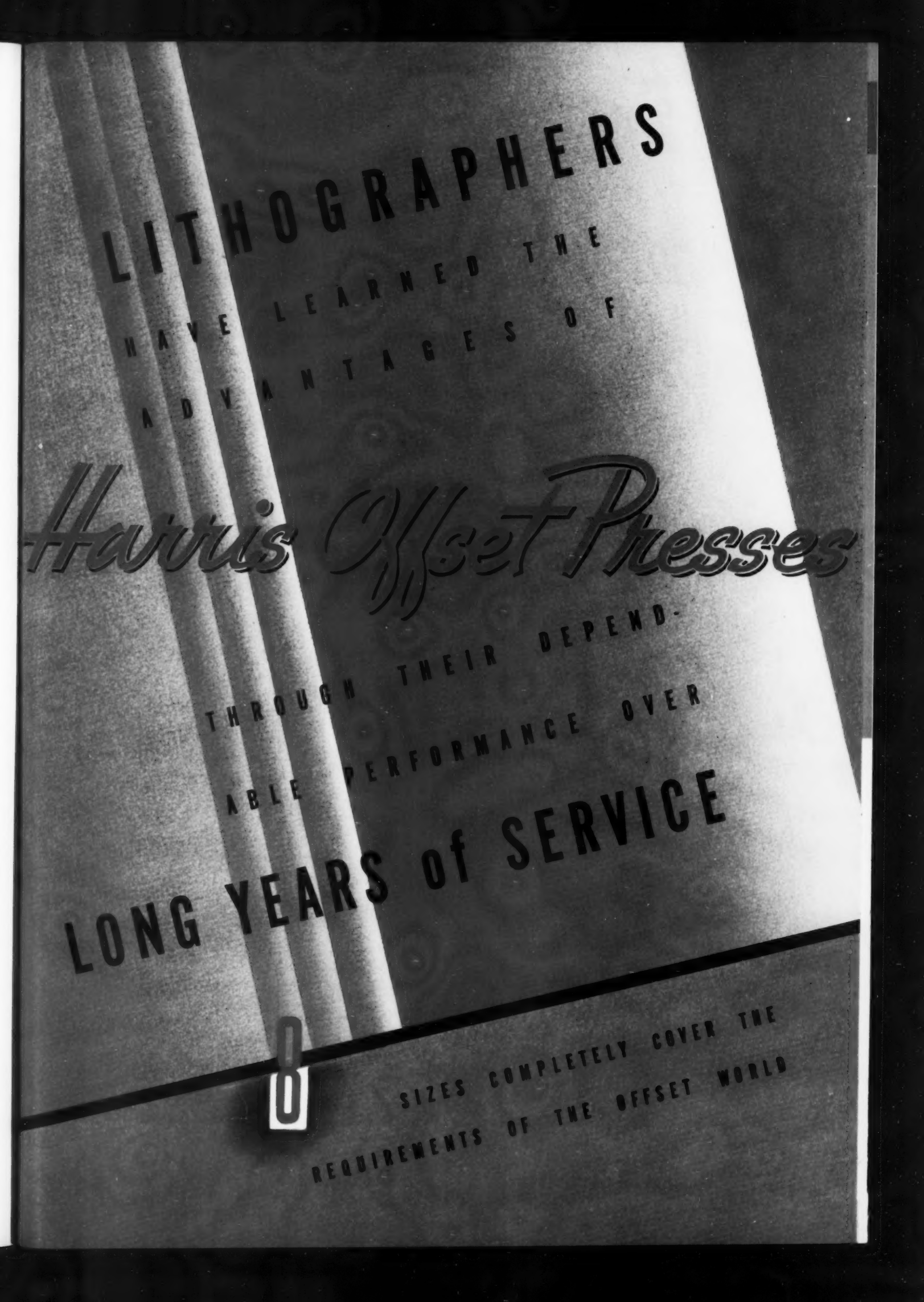
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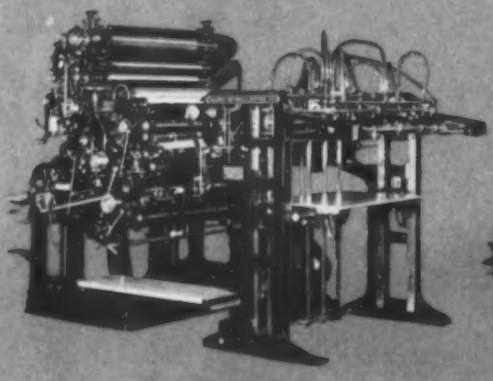
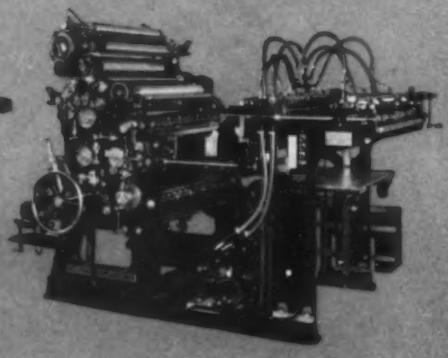
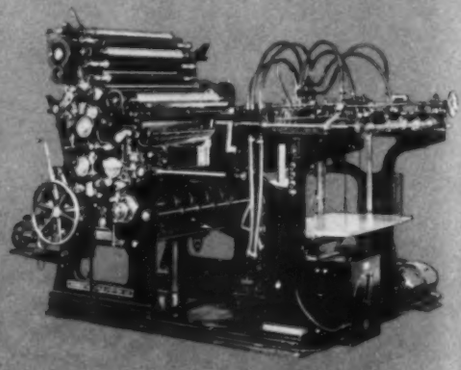


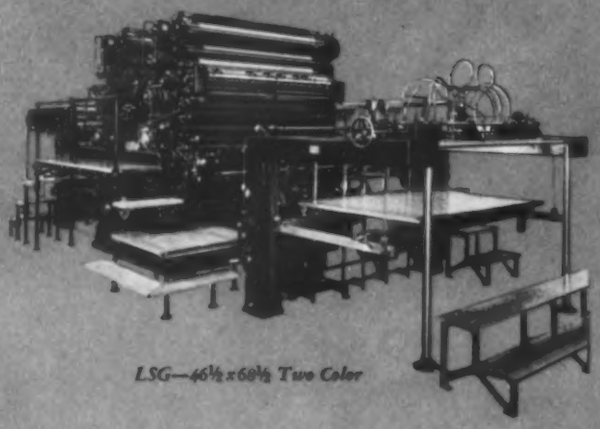
EL—22 x 34 Single Color



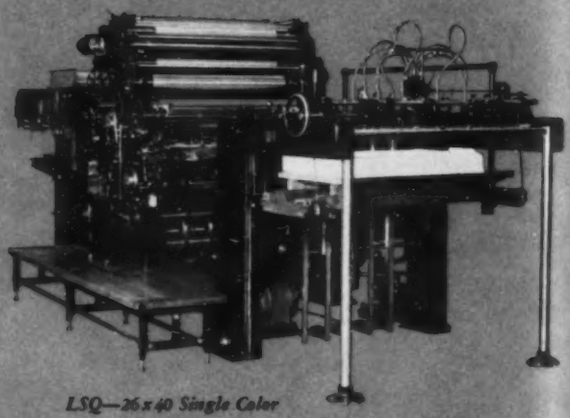
LSN—21 x 28 Single Color



LSB—17 x 22 Single Color



LSG—46½ x 68½ Two Color



LSQ—26 x 40 Single Color

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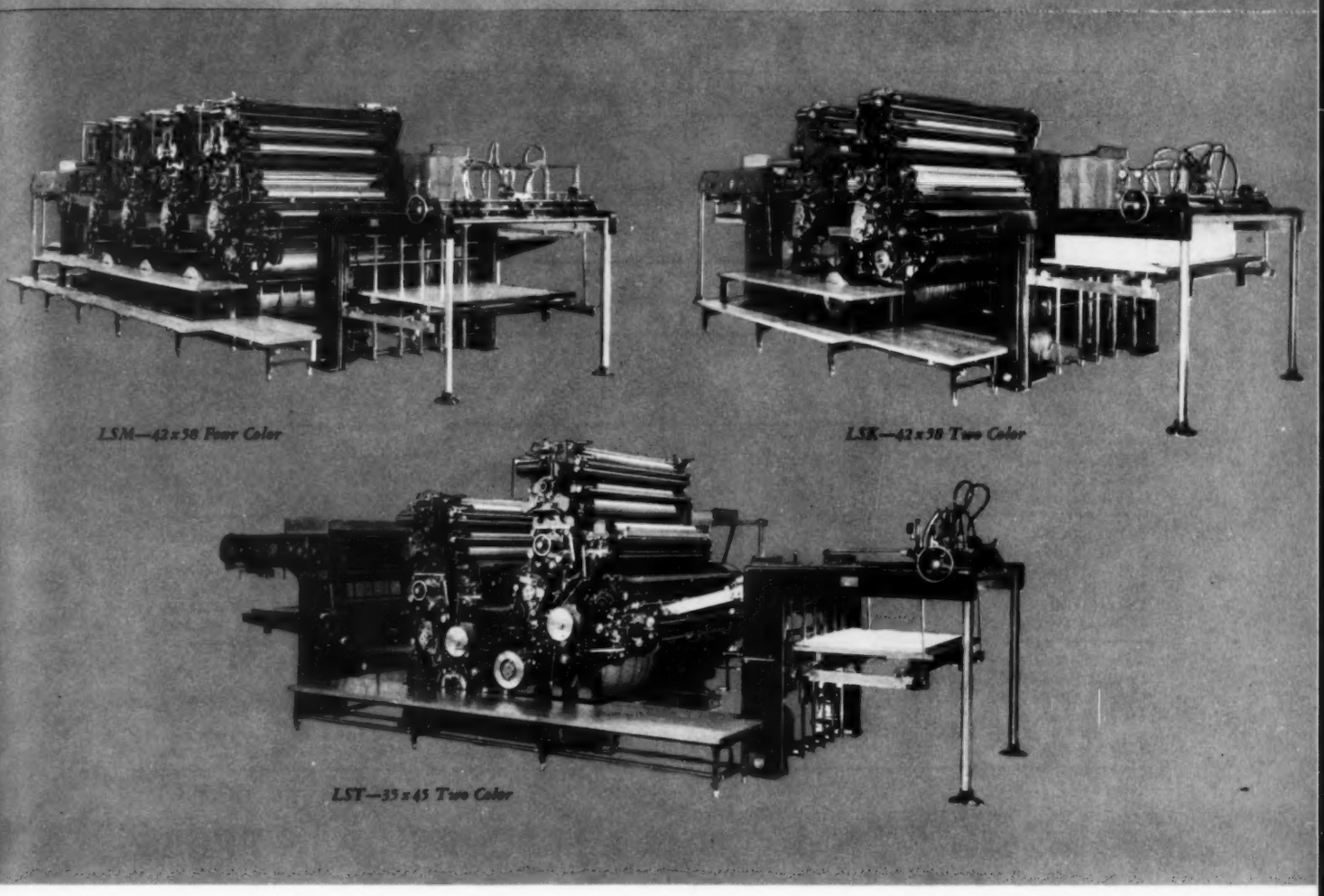
MODERN LITHOGRAPHY - *both quality and quantity*



LSM—42 x 58 Four Color

LSK—42 x 58 Two Color

LST—35 x 45 Two Color

☆ The significance of Harris as the pioneer makers of successful Offset Presses is not without its supporting premise of dependable press performance. Only skillful designing and craftsmanship in building could account for the preference accorded Harris presses among those who know the value of precision press performance.

Lithographers have learned the advantages of Harris Offset Presses because of their continued production of Offset that completely serves all requirements.

Production is DELIVERED SATISFACTION

SPECIFICATIONS

Press Designation	Sheet Size Limits	Maximum Size Print	Speed Range Imp. per Hr.	Floor Space	Net Weight (Pounds)
17x22 Harris LSB—Single Color Pile Feed—Pile Delivery	8½x11 To 17½x22½	17⅛x22½	7000	4'-6 "x 6'- 7"	4,750
21x28 Harris LSN—Single Color Pile Feed—Pile Delivery	10x14 To 22x30	21⅛x29	6000	5'-10"x 8'- 8"	8,000
22x34 Harris EL—Single Color Pile Feed—Pile Delivery	10x14 To 23x36	22½x35	5500	7'- 1"x10'- 7"	10,100
26x40 Harris Stream Feed—Pile Delivery LSQ—1 Color LSR—2 Color	17x22 To 28½x41	28⅛x40½	5500	9'- 7"x19'- 4" 10'- 3"x24'- 0"	20,100 32,100
35x45—Harris Stream Feed—Pile Delivery LSS—1 Color LST—2 Color	17x22 To 36x48	35⅛x47½	5000	10'- 2"x20'- 0" 10'-10"x24'- 8"	23,100 38,100
42x58 Harris Stream Feed—Pile Delivery LSJ—1 Color LSK—2 Color LSL—3 Color LSM—4 Color	22x34 To 42x59	41⅛x58½	5000	12'- 3"x23'- 6" 14'- 4"x27'- 7" 14'- 4"x30'- 6" 14'- 4"x35'-10"	34,000 57,000 80,000 103,000
46½x68½—Harris Stream Feed—Pile Delivery LSF—1 Color LSG—2 Color —3 Color LSH—4 Color	25x38 To 46½x68½	46⅛x68	4500	13'- 1"x26'- 0" 14'- 4"x33'-10" 14'- 4"x37'- 0" 14'- 4"x44'- 0"	45,000 72,000 98,000 125,000

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Harris Research . . . In every department of lithographic production, Harris is constantly alert to the benefits of sound research . . . an important phase of Harris contribution to the industry.

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ELIMINATE RAGGED RIGHT MARGINS—

WITH UNDERWOOD AUTOMATIC JUSTIFYING DEVICE

No more ragged right margins! This new Underwood Master Typewriter equipped with the Automatic Right Margin Justifying Device evens the right margin by expanding or condensing a line at the will of the typist. With the right margin justified, the original copy for any reproduction application has the finished, well balanced appearance of type-set work.

The expanding of short lines and the condensing of long lines, is spread over four inches, and the difference in character spacing is not detectable. The result is a pleasingly spaced original copy.

This Underwood model equipped with the new Automatic Right Margin Justifying Device is not only confined to this kind of work. It is a correspondence typewriter and may be used instantly for regular daily office work.

This machine may also be equipped with another outstanding Underwood feature, the Automatic Stroke Control, which controls the force of each typing stroke and gives even, uniform type impressions on master copy regardless of the uneven touch of the typist.

This model is available in various carriage widths, and a variety of type styles. Also, it may be equipped with a carbon paper ribbon which feeds automatically, giving a clear, clean, black type impression on master copies.

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A fine printing job requires a fine binding. And that's why more and more printers are calling Brewer-Cantelmo. They like the expert craftsmanship which distinguish our work. They like our modern facilities which insure prompt service. They like our spirit of service cooperation. Why not call us and let us show you how we can help you?

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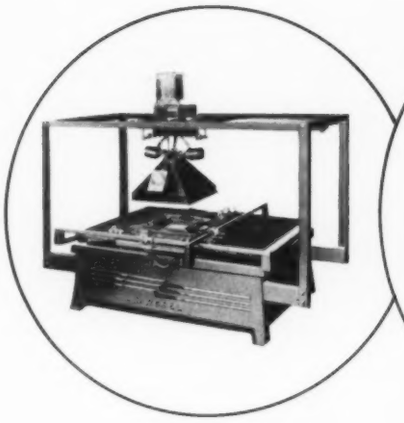

Wesel-Eureka
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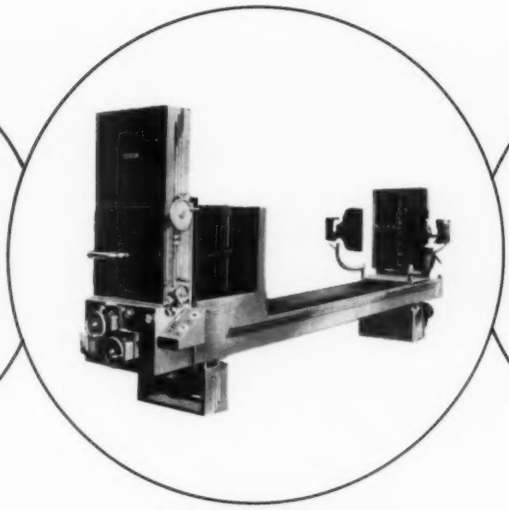

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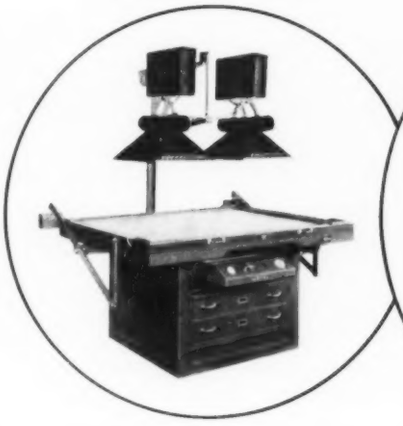
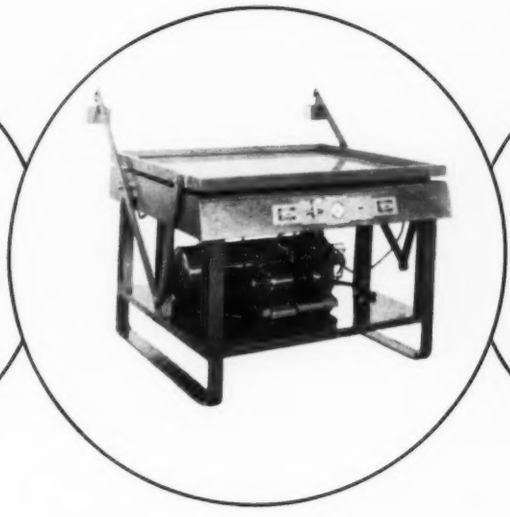
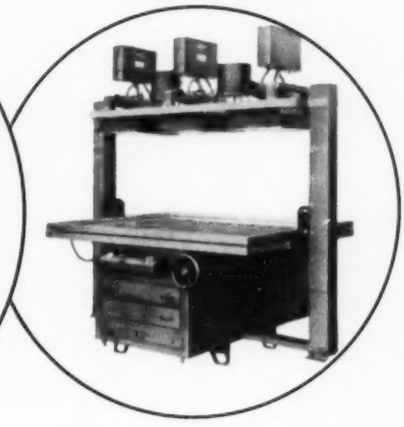


Wesel Automatic Vacuum
Printing Frame



Wesel Horizontal (Three Lamp)
Vacuum Printing Machine



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TOUGH AS LEATHER Sturdy, husky, well knit to the core. Plenty of stamina to take the day-after-day grind of high-production presses. *Durolith* Rollers can be depended upon to give an effective, high-quality performance throughout their life.

SMOOTH AS VELVET This applies not only to the fine, dry, non-greasy surface of the rollers themselves but also to the runs of *uniformly lithographed* jobs which come off the presses in regular production. No necessity for annoying and frequent ink and water adjustments.

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Now is the time to equip your plant with these modern *Durolith* Rollers in order to step up production, quality and profits.

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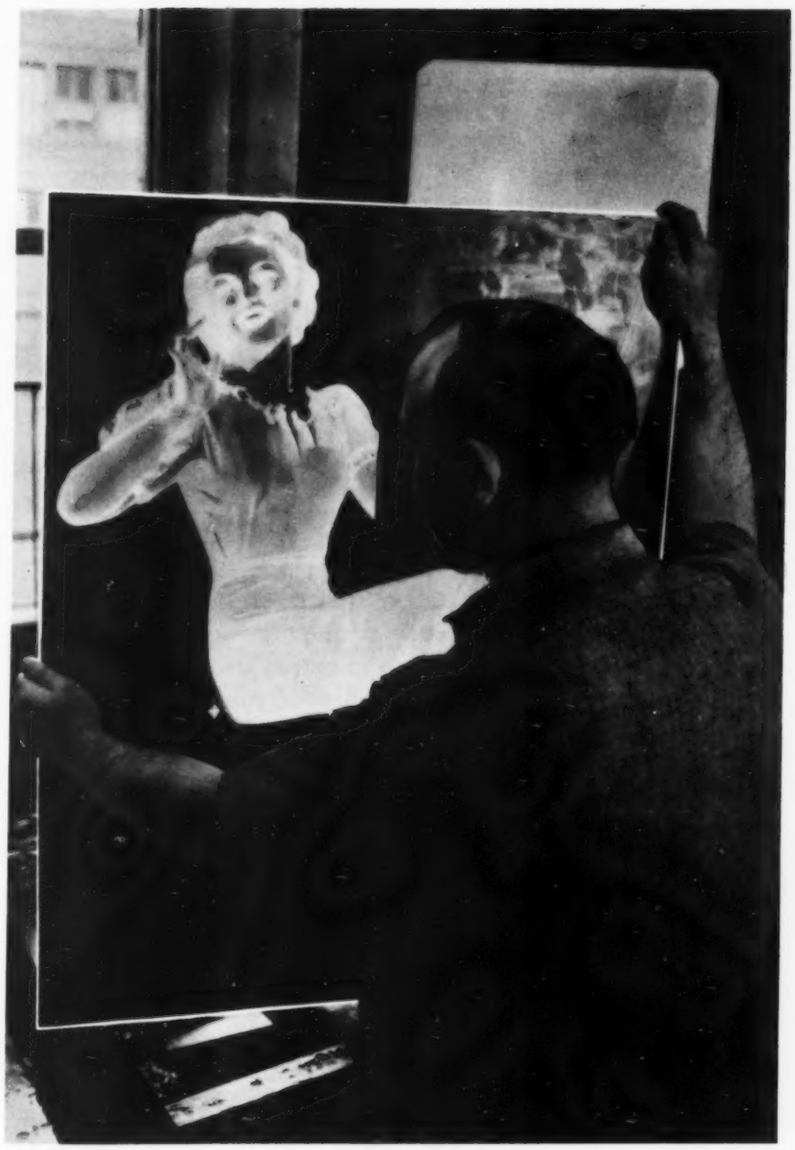

Into every negative enters

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To produce a finished negative of the better type, you need better copy, better craftsmanship and better chemicals.

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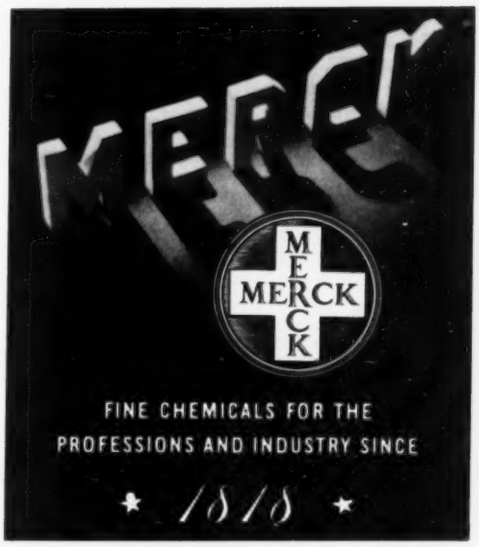

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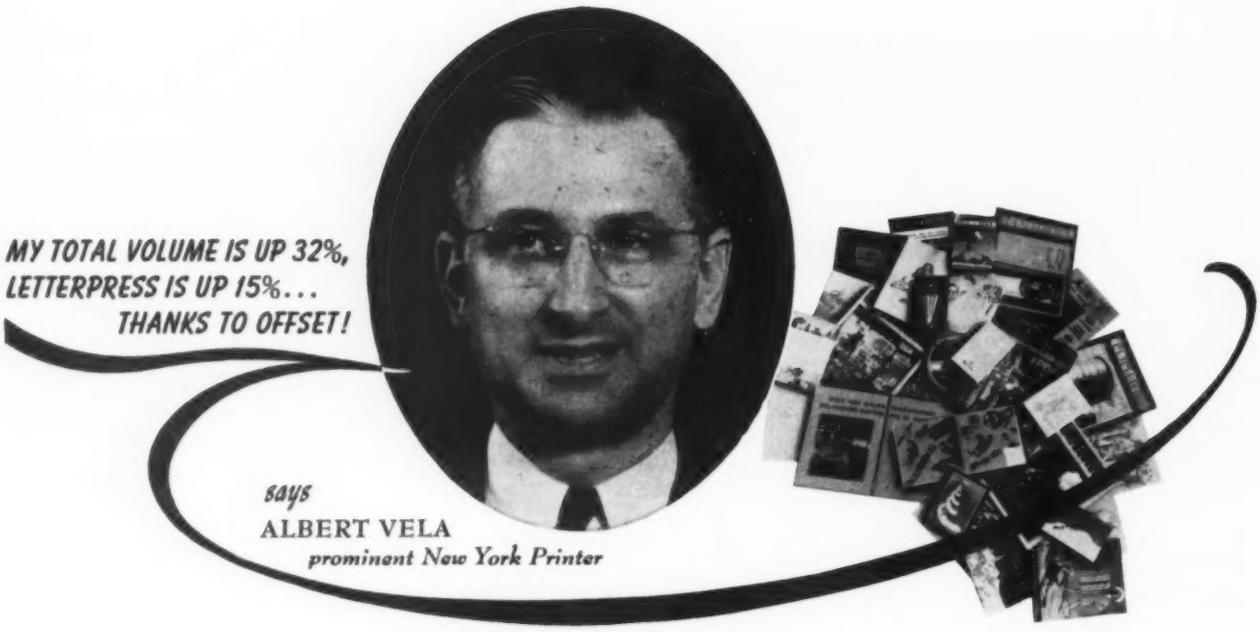

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"We installed two ATF-Webendorfer offset presses about two years ago," says Mr. Vela. "They have not only 'paid out' fine from the very beginning, but also helped us increase our letterpress volume substantially. For having a 'complete' service to offer, including both letterpress and offset, we were able to do *more* work with our existing customers, and also put many *new* customers on our books. We were well pleased, too, to find that the average letterpress shop can adapt itself to offset *easily* and *quickly*. Due to the fact that our 'over-all' volume has continued to grow, we have installed additional equipment, in both departments, this year."

You should get the complete facts on offset today... the simplicity of this modern process with efficient ATF-Webendorfer equipment in your plant... how profitably it will fit in with your letterpress equipment, too. Ask your ATF Salesman or Agent for details... there's no obligation except to learn how offset may help you get more business ... and more profits from *both* letterpress and offset.

Ask **ATF** . . . nowhere else can you get everything from precision cameras to high-speed sheet and web offset presses . . . as well as bindery equipment and experienced engineering layouts. Only ATF can give you both . . . complete offset and letterpress. Ask ATF!

ATF also makes Type, Composing Room Saws, the famous Kelly Presses, Little Giant, non-offset Guns, Rubber Plate Machine

American Type Founders

Offset Division • 200 Elmora Ave., Elizabeth, N. J. • *Branches in Principal Cities*

See our display in Booth 31 at the Palmer House, Chicago, N. A. P. L. Convention, September 26, 27 and 28, 1940

Types used: Bulmer, Grayda and Franklin Gothics

EDITORIALS

WHATEVER happened to that organization of display lithographers that was formed last spring? Did it die aborning, or has the cat got its tongue? We know it held one meeting, at least, because we were there. We heard some persuasive reasons outlined which seemed to establish the need for a display group. We heard it said that if the national advertiser was to provide for the display in his advertising budget the same as other media, then something should be done to awaken him to its value. We heard someone urge the necessity for group action in behalf of the display. And we thought we sensed a desire for action. What has happened? Aren't the reasons for such an organization just as good now as they were last spring?

What put us in mind of the whole subject has been the publicity activities of that group of mounters and finishers in Chicago known as the Point-of-Purchase Institute. We've seen a number of articles on displays in various magazines written by some member of the Institute, and not once do we recall seeing lithography mentioned. Naturally, the mounters and finishers are under no obligation whatsoever to say anything about lithography. They can leave it to the reader to decide whether the display is a lithographed one or not. They can even describe a display as "cardboard", which, in fact, is what they have done in several of the articles, and still be perfectly within their rights. But certainly if they continue to publish articles about point-of-purchase advertising, and of course they will, since that is one of the objectives of their organization, and if they continue to speak of point-of-purchase advertising as "cardboard", which, of course, they have a perfect right to do, then, wholly unintentional though it may be, won't that harm the display lithographer? We think it eventually might. Association, you know. A situation like this could be effectively handled by an organization of display lithographers. We sincerely hope they haven't abandoned the idea, and that before the snow flies we shall hear of a program to put the lithographed display where it belongs—out in front.

"THERE are too many crackpots in this game," we heard a lithographer say recently, referring to the lithographic industry. "They ought to be run out." A crackpot in the lithographic industry, we have learned, is usually someone with a service, or a product, or an opinion to sell of a technical nature which subsequently turns out to be spurious. And whenever you hear a lithographer make a remark like the one we heard, especially if he is a comparative newcomer or has a small plant, it usually turns out that he has parted with some hard cash to find that out. We used to sympathize with such cases, but lately we've been inclined to turn a deaf ear. The reason is that in the majority of the instances the lithographer turned out to be a sucker because he was just plain ignorant, or careless, or a penny-pincher. He thought he'd found a short-cut to more profits and an increased volume. He thought he could get by with inferior material or a piece of makeshift equipment, or he listened to some fly-by-night advice—all because they were cheap.

Oh, undoubtedly there have been times when a lithographer has unwittingly been sold a bill of goods, when he has been, as they say, an innocent victim. But we believe they are rare in comparison with those in which the lithographer has been "victimized" because he indulged in some pretty sloppy wishful thinking. Rare or not, there is positively no intelligent excuse for a lithographer, experienced or otherwise, in this industry, with all its trade associations, schools and research facilities, to be duped into buying spurious merchandise or opinion.

MERLE S. SCHAFF, President.

WALTER E. SODERSTROM, Executive Secretary.

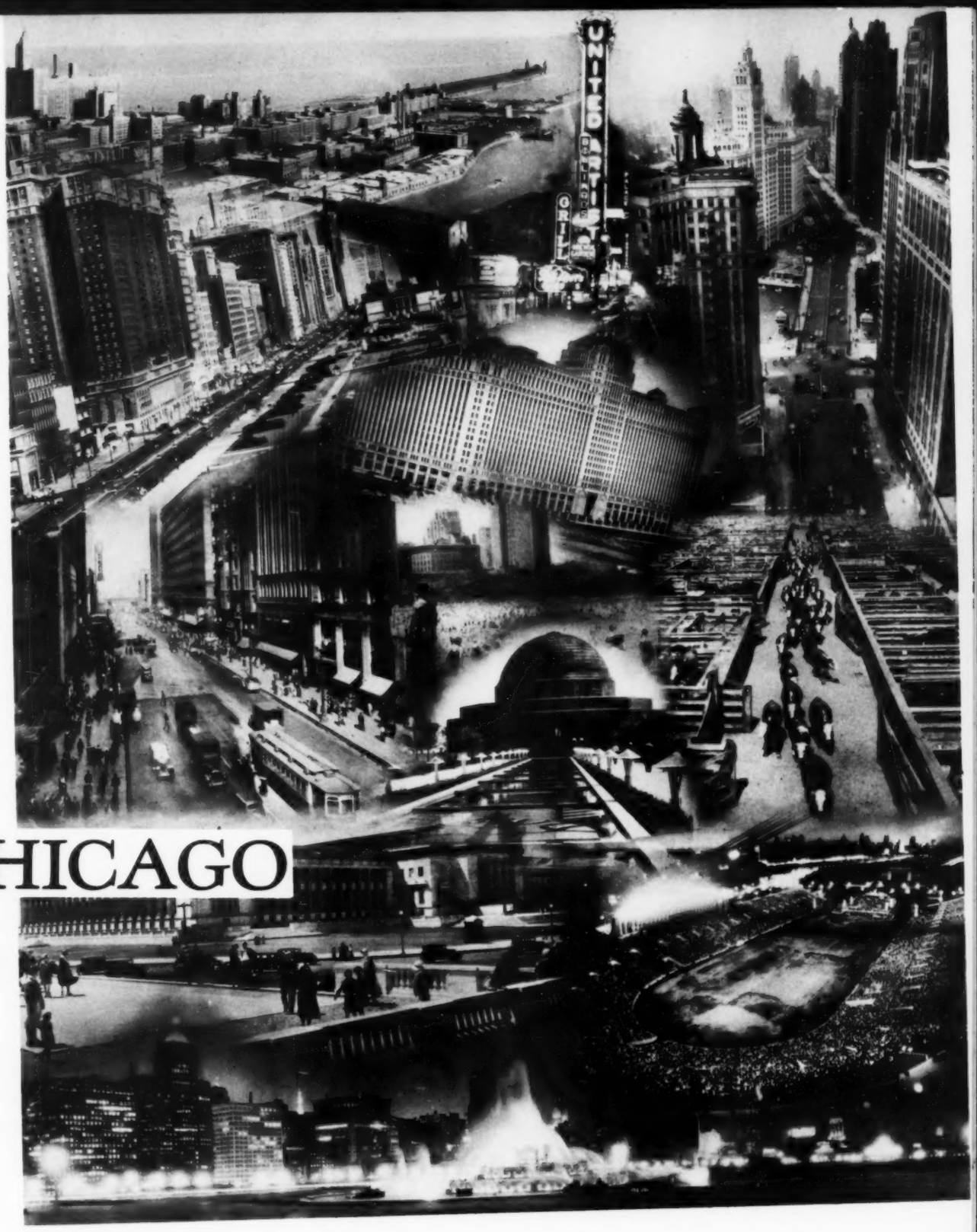
N.A.P.L. MEETS IN

CHICAGO, mid-western stronghold of the graphic arts industries, will add a new name to its roster of convention guests this month when the National Association of Photo-Lithographers, meeting in the Windy City for the first time, gathers at the Palmer House, September 26 to 28, for its 8th annual conclave. The city is the home of many of the association's members, and the local contingent is planning to make the welkin ring in honor of the event. That, plus the fact that Walter E. Soderstrom, executive secretary, and his Program Committee have been busy arranging a schedule of subjects covering a wide range of topics on production, sales and management for the business sessions, promise to make the three-day gathering one not soon to be forgotten.

The stellar feature of every N.A.P.L. convention, not including the Share-Your-Knowledge sessions which are now a tradition and, therefore, in a class by themselves, has always been the speakers. Ever since they began having conventions the Photo-Lithographers have brought to their meetings men who knew their subjects and knew them well. This year, by the look of the program, promises to be no exception.

First on the list, following the opening address on Thursday morning at 10 A. M. by Merle S. Schaff, president, is Dr. Charles Copeland Smith, nationally-known economist and member of the staff of the National Association of Manufacturers, who will talk on "What's Ahead for America?" Dr. Smith is in close touch with affairs in Washington and throughout the nation in his capacity as intermediary and coordinator of the N.A.M.'s activities, and he will report his findings and observations insofar as they are of interest to the lithographic industry. Such topics as Industrial Mobilization, Conscription and others upon which the national emergency has focused attention will be commented upon.

Following Dr. Smith, the conventioneers will hear Captain L. B. Montfort, legal counsel for the N.A.P.L. Captain Montfort, who lives and works in Washington, will analyze the legislative picture as it affects the photolithographic industry. This talk promises to be an important one since major attention will be given to the Fair Labor Standards Act which, as a result of the National Defense Program,



has given rise to many new problems in its enforcement and provisions. It has been predicted by some that in view of current happenings there is a possibility of Congress revising some of the provisions of the Fair Labor Standards Act. Be that as it may, Captain Montfort's talk will be both pertinent and timely.

Photo-Lithographers gather at Palmer House, September 26 to 28. Wages & Hours, National Defense, and Production Standards are headline topics during three-day session.

N. A. P. L. PROGRAM

THURSDAY

Sept. 26

Address of Welcome
MERLE S. SCHAFF, President

What's Ahead for America?
DR. CHARLES COPELAND SMITH
National Manufacturers Ass'n

Wages and Hour Laws
CAPTAIN L. B. MONTFORT,
Legal Counsel

What Constitutes a Reasonable Delivery Service?
J. B. SMITH, JR.
Photo Reproduction Corporation

Advertising in the Lithographic Industry
W. A. KRUEGER, JR.
W. A. Krueger Company

Charging for Overruns
A. J. FAY, Sales Manager
National Process Company

Round Table Discussions on Advertising and Selling
Presiding, A. J. FAY
National Process Company

Clinics at the Chicago School of Printing and Lithography
Albumin and Deep Etch Platemaking, Dot Etching and Color Separation

FRIDAY

Sept. 27

Economic Hourly Costs and Production Standards
WILLIAM ARTHUR CLARK, C.P.A.

Wash-Up Equipment and Ink Agitators
WILLIAM C. GEGENHEIMER

Lithographing on Coated Paper
SUMMERFIELD ENEY
Champion Paper & Fibre Company

Lithographic Shop Procedure
DONALD NICHOLSON
Ronalds Offset Lithographers, Ltd.

Building a Uniform Cost and Accounting System
WILLIAM ARTHUR CLARK, C.P.A.

Round Table Discussion on Production and Management
Presiding, A. G. MCCORMICK, JR.
The McCormick-Armstrong Co.

Clinics at the Chicago School of Printing and Lithography
Albumin and Deep Etch Platemaking, Dot Etching and Color Separation

ANNUAL BANQUET

SATURDAY

Sept. 28

The Simplified Chemistry of Printing Inks
WILLIAM GARRETSON, Chief Chemist
Sinclair & Valentine Company

Light Sensitive Materials Used in Photo-Lithography
JOHN MCMASTER
Eastman Kodak Company

"SHARE YOUR KNOWLEDGE" PROGRAM

Symposium Discussions on Technical Production Problems
MAJOR W. W. KIRBY presiding

Assisted by:
SUMMERFIELD ENEY
Champion Paper & Fibre Co.
WILLIAM GARRETSON
Sinclair & Valentine Co.
WILLIAM C. GEGENHEIMER
William Gegenheimer, Inc.
JOHN MCMASTER
Eastman Kodak Company
DONALD NICHOLSON
Ronalds Offset Lithographers, Ltd.
ROBERT W. REED
Lithographic Technical Foundation
I. H. SAYRE
Chicago School of Printing

Quality in Lithography
HARRY PORTER
Harris-Seybold-Potter Co.

The One-Stop Halftone Method
I. M. THORNER
Agfa Ansco Corporation

The afternoon session on Thursday will get under way promptly at 2 P. M. with a talk by J. B. Smith, Jr. of Photo-Reproduction Corp., New York, on "What Constitutes a Reasonable Delivery Service." Discussion of this question has been particularly lively lately in advertising centers such as Chicago and New York where fast delivery, amounting to overnight service in a great many cases, has affected competitive conditions in the industry. The situation has made the definition of what constitutes a reasonable delivery almost imperative. Mr. Smith will attempt to classify jobs according to the delivery rate which may be expected by the customer. Naturally, a plant's operating capacity and price structure will be important elements in his interpretation, therefore, photo-lithographers may look forward to learning new facts regarding correlation of these several factors. It is possible that the association will adopt a standard trade custom, based on the speaker's report.

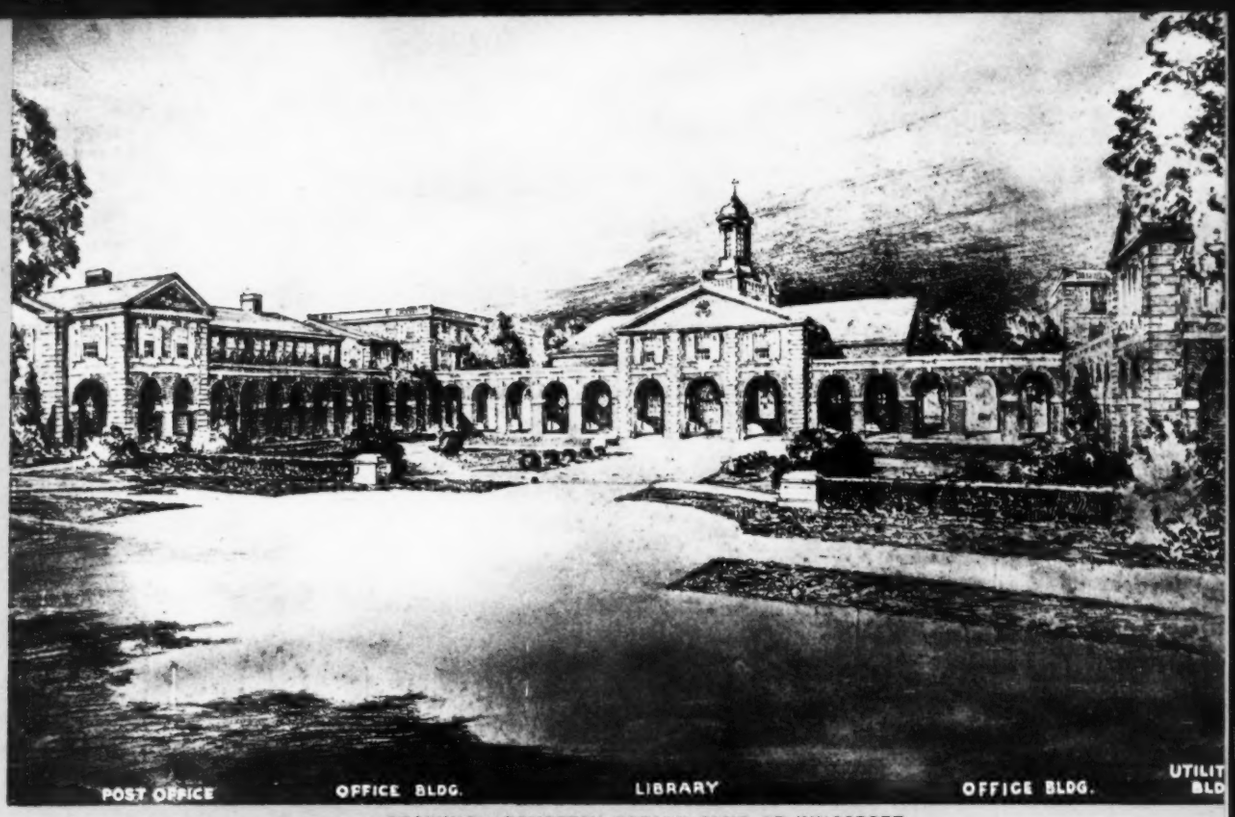
Mr. Smith will be followed by W. A. Krueger, Jr., of W. A. Krueger Co., Milwaukee, with a discussion of "Advertising in the Lithographing Industry."

Head of one of the most advertising-minded photo-lithographing houses in the mid-west, Mr. Krueger will describe the types of advertising used by

(*Turn to page* 81)

TO EXHIBIT AT N. A. P. L. CONVENTION

AGFA ANSCO CORPORATION
AMERICAN TYPE FOUNDERS SALES CORPORATION
RUSSELL ERNEST BAUM
SAM'L. BINGHAM'S SON MFG. CO.
RALPH C. COXHEAD CORPORATION
DAYTON RUBBER MFG. CO.
EASTMAN KODAK COMPANY
FUCHS & LANG MANUFACTURING CO., Division General Printing Ink Corp.
GODFREY ROLLER CO.
HAMMER DRY PLATE & FILM CO., INC.
HARRIS-SEYBOLD-POTTER CO.
PHILIP A. HUNT COMPANY
IDEAL ROLLER & MFG. CO.
LITHO CHEMICAL & SUPPLY CO.
MALLINCKRODT CHEMICAL WORKS
MERCK & CO., INC.
NORMAN-WILLETS CO.
HAROLD M. PITMAN CO.
RAPID ROLLER CO.
RUTHERFORD MACHINERY CO., Division General Printing Ink Corp.
SINCLAIR & VALENTINE COMPANY
VANDERCOOK & SONS



The Civic Center

DRAWING—COURTESY ROTARY CLUB OF KINGSPORT

KINGSPORT

Air View of City Reservoir atop Bay's Mountain

A VISIT to the wonders of East Tennessee would not be complete without including the planned city of Kingsport. On U. S. Highway No. 11, the direct route south to the Great Smoky Mountains National Park and Norris Dam, it affords the visitor a ready explanation of the new industrial south.

Planned by experts and built by men of vision, it is populated by an ever increasing group of cosmopolitan people. Incorporated in 1917, greater Kingsport's population is now over 30,000.

Reasons for its growth are plainly visible — Come and see for yourself.

A composite view of several of Kingsport's many industries

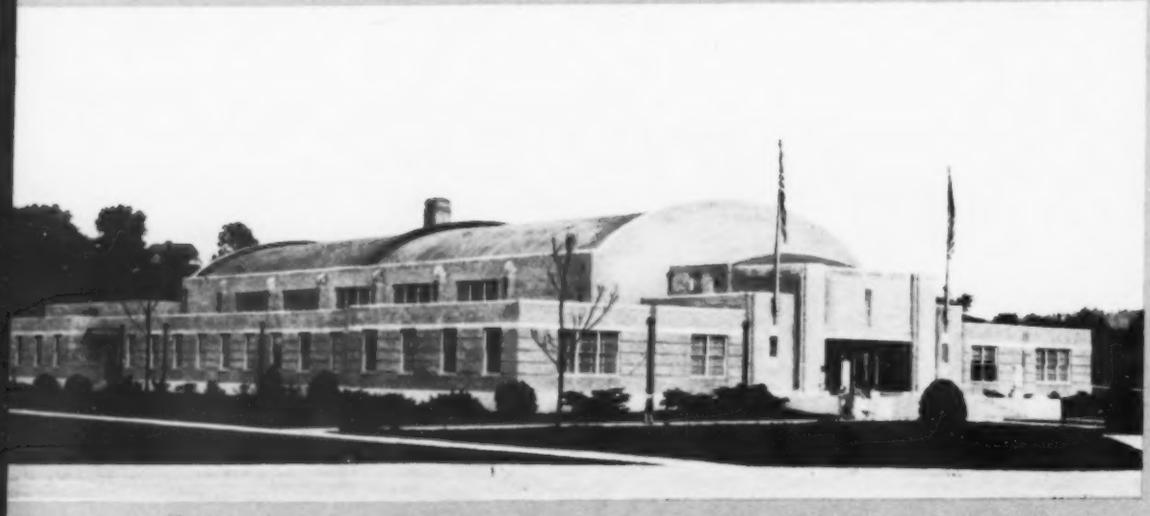
CITY OF INDUSTRIES

An infant city with a whale of a future—
Kingsport, a truly American community.

A well diversified group of industries, large and small, is a stabilizing influence on local conditions. These speak volumes for the builders of the city of Kingsport.

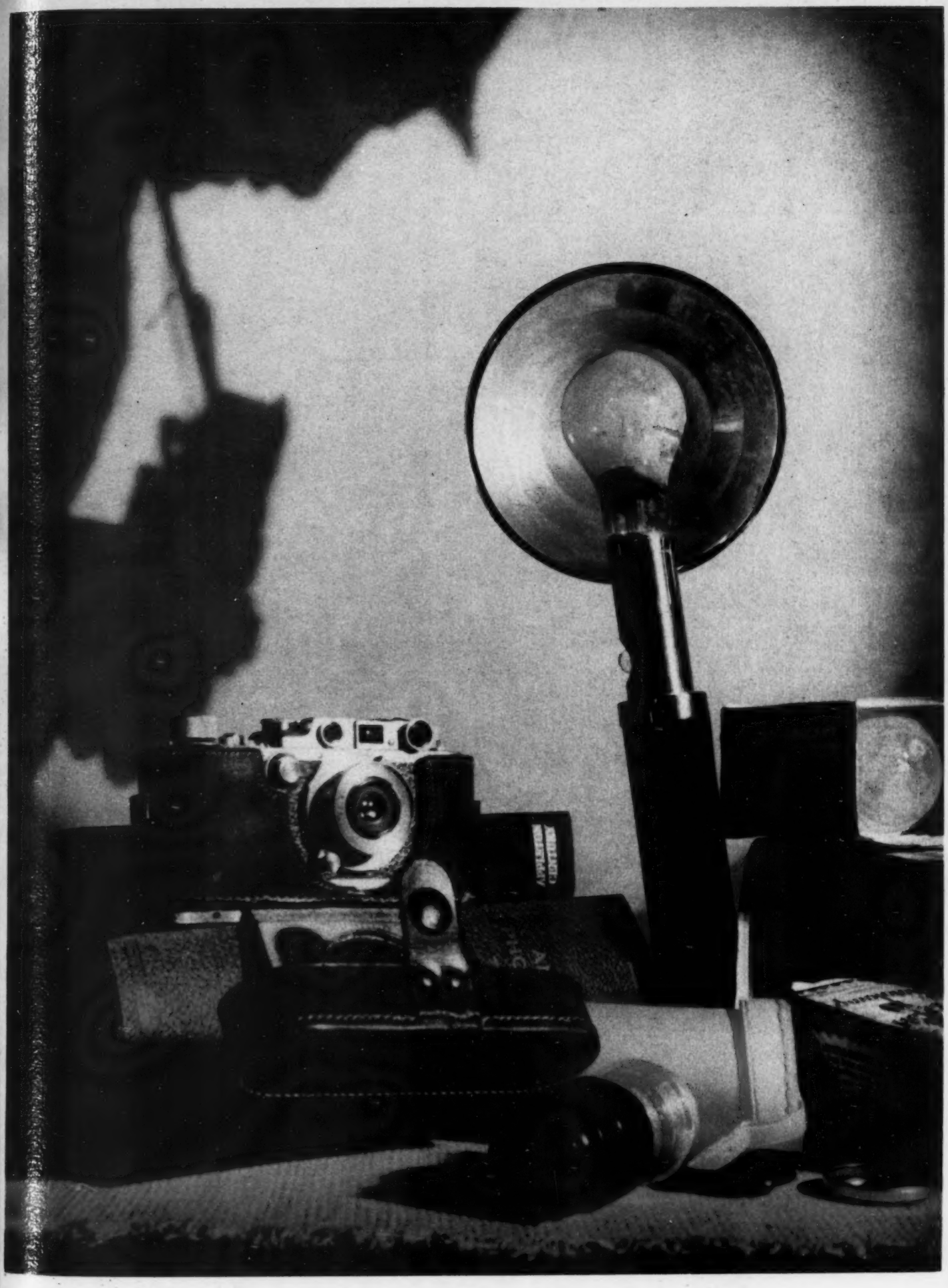
A public school system that has met the emergencies of rapid expansion, and still maintained the highest of standards, is a glowing tribute to the efficiency of Kingsport's city government.

That the citizens of such a city must indeed be progressive, is borne out by the profusion of well kept and beautifully landscaped homes in the growing residential districts.



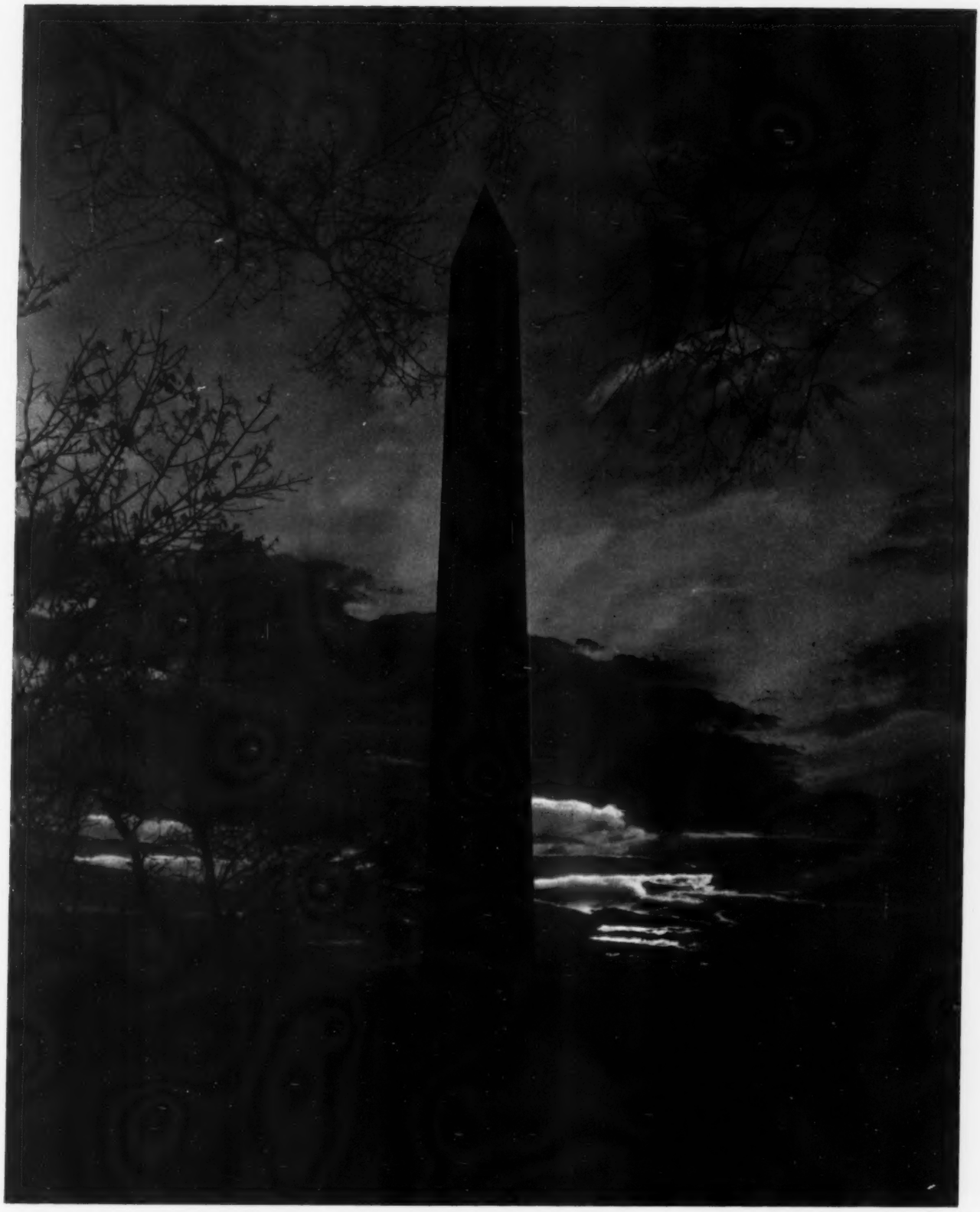
Kingsport's
New Civic Auditorium

HOWARD-DUCKETT COMPANY
Printers and Lithographers
KINGSPORT • TENNESSEE



PRODUCED BY
PEORIA BLUE PRINT & PHOTOPRESS CO.
Peoria, Illinois

The 1940
Northwestern
Designs
NORTHWESTERN CABINET CO., BURLINGTON, IOWA
"Americas Largest Desk Builders"
Offset in 2 colors and press varnished.
PRODUCED BY
PEORIA BLUE PRINT & PHOTOPRESS CO.
Peoria, Illinois



Lithographed from Harris Deep Etch Process Plates
By
WEBB & BOCORSELSKI-NORRIS PETERS, Inc.
Washington, D. C.

Dot Etched Negatives
By
Standard Engraving Co.

TO ADDRESS N.A.P.L. CONVENTION

SUMMERFIELD ENEY
Champion Paper and Fibre Co.

CAPT. L. B. MONTFORT
Legal Counsel

DONALD NICHOLSON
Ronalds Offset Lithographers, Ltd.

HARRY PORTER
Harris-Seybold-Potter Co.

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J. B. SMITH, JR.
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I. M. THORNER
Agfa Ansco Corporation

WILLIAM ARTHUR CLARK
C. P. A.

WILLIAM GARRETSON
Sinclair & Valentine Co.

PHOTOLITHO *Progress*

By J. S. Mertle, A.R.P.S.

A review of recent developments and improvements in equipment.

SINCE photolithography is based on photography, it is fitting that the present review commence with recent developments and improvements in equipment for the photomechanical operator.

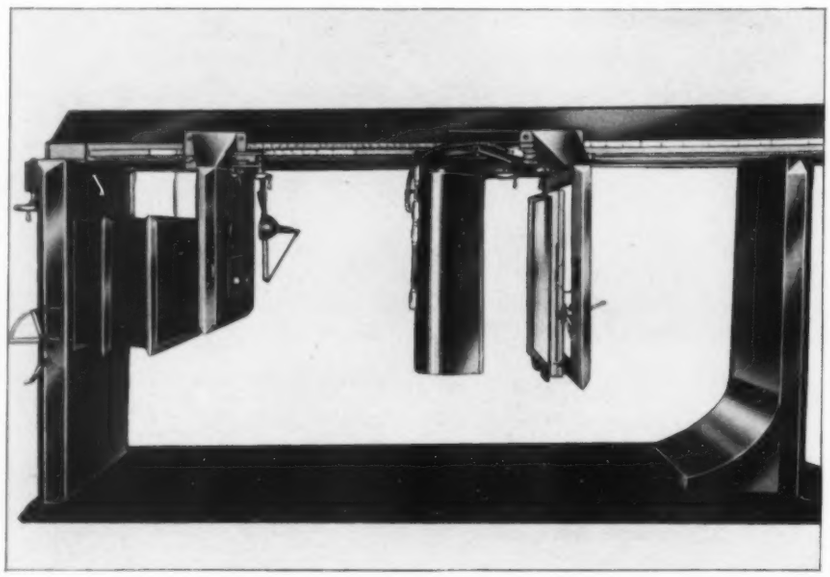
For photolithographic reproduction, the darkroom camera has long been favored, with the modern trend in the direction of cameras of the suspension type. The latest camera in this category is that produced by the Douthitt Corporation, offering an apparatus of streamline design, fitted with focusing scale, combination film- and plateholder, screen-raising mechanism, tilting copyboard, with lamps attached to the board and moving with it.

Diaphragm controls for calculation of halftone exposures and lens stops for halftone photography continue to receive the attention of inventors. Controls especially designed for photolithographic halftone reproduction are those designed by R. P. Newick and an instrument, invented by Emil Muller (Pictorial Machinery, Ltd.). Among halftone stops for highlight negatives may be mentioned the rotating diaphragms of A. J. Farley and the one patented (U.S.P. 2,145,427) by George W. Morris, also the *Hilite* process of Carl G. Johnson, based on the latter's Direct Stop Indicator.

Halftone screens of the variable-opacity type continue to appear in competition against the standard cross-line ruling, but the researches of F. J. Tritton show that any result obtained with photographic (variable-opacity) screens can equally well be produced with the regular halftone screen. Various types of "screens" have recently been noted (Grafa-Tone, Artex, etc.), including a metal "halftone" screen, patented (U.S.P. 2,171,276) by Edward O. Norris, said screen consisting of a thin perforated sheet of non-reflective metal, mounted in a rigid frame under tension.

Devices for laterally reversing photomechanical images without turning the camera on its base are offered by Carl

Suspension type camera, manufactured by Douthitt Corporation.



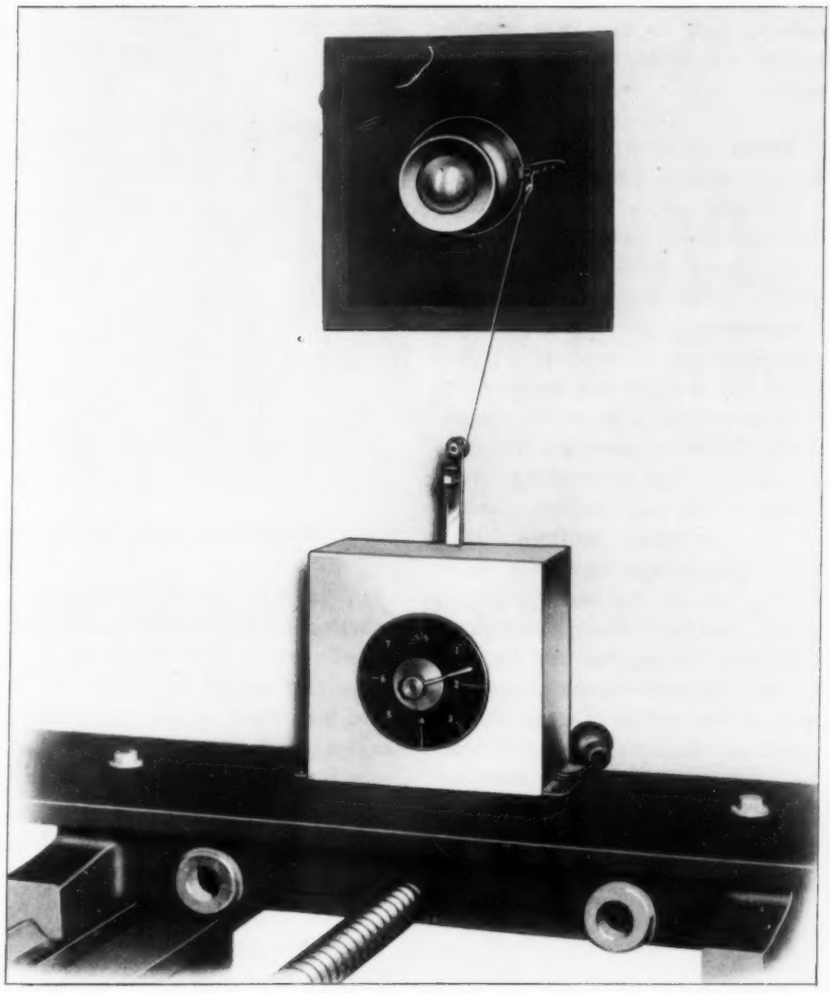
Zeiss, Inc. (*roof mirror* for Zeiss *Apotessar* lenses), and the Huebner Laboratories (*Straight Line Image Reverser*), the devices providing greater convenience over prisms and reversing mirrors, especially in crowded process galleries.

The support of films and negative paper during line and halftone exposures is facilitated by two new forms of stayflats—the *Filmflat* of Ilford, Ltd., and the *Kodaflat* preparation of the Eastman Kodak Company. Those partial to a vacuum holder may be interested in the patented holder (U.S.P. 2,139,956) of William C. Huebner, in which an arrangement is embodied for a halftone screen, and for retaining the photographic medium by vacuum pressure.

In the field of illumination, the new tubular fluorescent lamps are being considered, not only for lighting camera copy and Kodachrome transparencies, but also for darkroom safelights, as well as stripping and layout tables and viewing stands. The lamps are mercury vapor arc tubes, coated on the inside with fluorescent chemicals, which possess the property of converting the high ratio of invisible ultra-violet radiation present in mercury arcs into visible light.

In conjunction with photomechanical camera exposures, the General Electric Company has designed the *G-E Totalux,* a photo-electrically-operated control for governing the volume of light falling on the copy during exposure. Once the total light for a given type of exposure has been determined, the control is set accordingly—on expiration of the exposure, the control turns off the lights or sounds a warning alarm. The *Totalux* compensates for fluctuations in light: it decreases the time exposure if the light is unusually intense, contrarily increasing it if less than the normal volume of light is falling on the photoelectric cell contained in the apparatus.

To aid the color photographer, the Eastman Kodak Company has introduced a *Color Temperature Meter,* an instrument for measuring the quality of light and for determining the difference in color temperature between the various forms of illumination used in color photography. Color temperature can be regarded as a measure of the relative amounts of blue (or green) and red in light sources; it is usually indicated in degrees Kelvin (°K), equivalent to Centigrade degrees plus 273°.



Diaphragm control designed for photolithographic halftone reproduction by R. P. Newick.

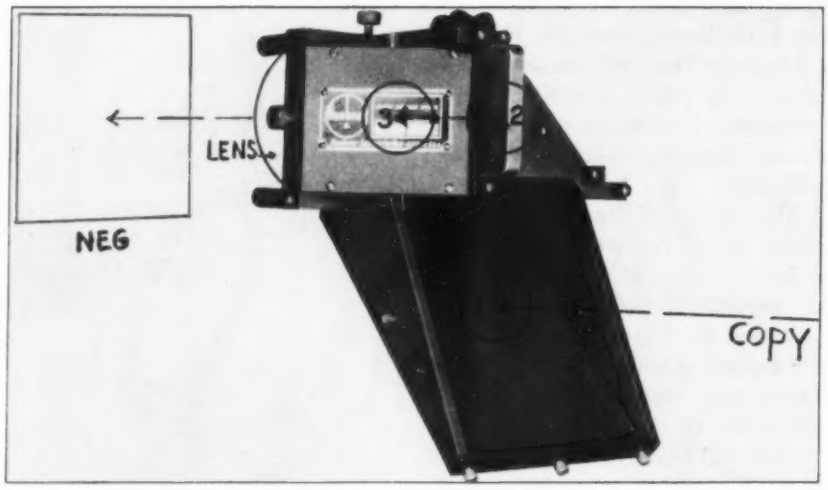
In the past, color filters have consisted of dyed gelatin films, or films cemented between glass, but the modern approach seems to be towards less fragile and susceptible materials. Filters of colored cellophane have been patented (U.S.P. 2,182,585) by Lewis J. Green, another patent (U.S.P. 2,193,035), issued to Irving C. Matthews and Glenn M. Atkins (Eastman Kodak Company), involving the production of filters from dyed synthetic resin.

Aside from photography with Kodachrome film, no phase of color photography has received more recent attention than the color correction of separation negatives by means of photographic masks. To attempt even a cursory review of late methods is outside the scope of the present paper, though mention might be made of F. J. Tritton's study of the subject (*Photographic Journal,* 78, December, 1938, 732-738), also the patented processes of Ladislaus Szigeti, (U.S.P. 2,158,951), Alexander Murray (U.S.P. 2,165,407), Merrill W. Seymour (U.S.P. 2,169,009), William J. Wilkinson (U.S.P. 2,170,883—2,174,812), John A. Yule (U.S.P. 2,183,524—2,183,525), George Ehrenfried (U.S.P. 2,203,652) and others.

Densitometers are convenient devices for measuring and determining the density of photographic images, particularly in color masking methods. A number of instruments of this type have been introduced, the one offered by the Albert Specialty Company (Marshal densitometer) being of special interest to photomechanical

workers, since its long arm permits reading the center of 16x20 inch images.

LITTLE has occurred to change the technique of dot etching, though A. C. Austin proposes to etch halftone positives made on sensitized aluminum, a procedure evidently intended to afford a closer approximation of the photoengraving principle of etching halftone images on copper plates. The Austin idea is faced with the necessity of rephotographing the etched images to provide the negative (or positive) required for litho platemaking. Pertaining to color reproduction, a method of converting halftone color plates (photoengraving) into litho printing surfaces has been developed by the National Process Company, said process bearing the title *Napconversion*. As outlined, the process depends on the creation of transparencies (positives) from the etched halftones, deep etch plates then made from the positives in either reductions or enlargements from the original etchings.



Straight Line Image Reverser, manufactured by Huebner Laboratories.

In halftone color reproduction, a moiré or pattern sometimes occurs (particularly in the darker tones), even when the various separation images have been made at the proper screen angles. R. S. Cox and C. D. Hallam have investigated this problem (*Process Engraver's Monthly*, 45, August, 1938, 272-274), and find that such pattern may sometimes be due to halftone screens in which the two rulings are not cemented at exactly right angles to each other; in such cases, the angles between the primary colors (yellow excepted) should be separated from each other by 60 degrees, instead of the usual 30 degrees.

Control of solution temperature is very important in photographic operations, particularly in the development of images on plates, films and papers. A number of temperature control units are now on the market, the latest being those introduced by R. R. Robertson and the Douthitt Corporation.

In the platemaking phase of photolithography, considerable use is being made of dyed images, such as are produced by photolac and kindred methods. A special dye solution for imparting a non-actinic color to bichromated colloid images has been introduced under the name *Blacktone* by the Studio City Laboratory. The solution is especially applicable with bichromated glue images.

The modern trend toward synthetic materials has also affected photolithography, typified by the use of polyvinyl alcohol as a platemaking vehicle, in place of the time-honored albumen. Among those engaged in research contingent with the photolitho employment of polyvinyl alcohol are the Harris-Seybold-Potter Company (U.S. P. 2,179,245—2,199,865), the E. I. du Pont de Nemours Company (U.S.P. 2,184,288 — 2,184,289 — 2,184,310), and A. F. Greiner (U.S.P. 2,174,629).

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Color Temperature Meter, manufactured by Eastman Kodak Company.

PHOTOGRAPHIC *Progress*

By Lloyd E. Varden, A.R.P.S.

Agfa Ansco Corporation

Directly or indirectly, the Photographic Industry is responsible in a large measure for many improvements in lithographic reproduction. They are reviewed by the author.

IN A review of the progress made in the graphic arts fields during 1937, H. M. Cartwright wrote: "A feature of the past year has been the tendency to control all technical operations much more accurately". A year later the same author in another article of similar nature wrote, concerning progress in 1938: "A noticeable feature of the past year has been the more extensive use of exact methods of control of technical operations".

It is well-known that graphic arts craftsmen are progressive. But for a well-known writer in the field to point out the fact on two successive years definitely indicates a marked trend toward a desire for technical perfection.

Evidence of the truth of these prophetic remarks in photolithography is borne out by the adoption by the industry of photo-electric exposure controls, the development of new metals and sensitized coatings for plate making, the general spread of the deep-etch process—and above all a marked improvement in both monochrome and color lithographic printing.

To a large measure the general improvement in lithographic reproduction has arisen from developments in the photographic industry, whether directly or indirectly related. A review of some of these advances will aid us in arriving at a proper perspective and a better appreciation of the importance of such developments.

It was just about ten years ago that the first thin-base high-contrast films especially adaptable to lithographic processes were introduced on the American market. Perhaps the earliest of these films was Agfa Prin-

Fig. 1

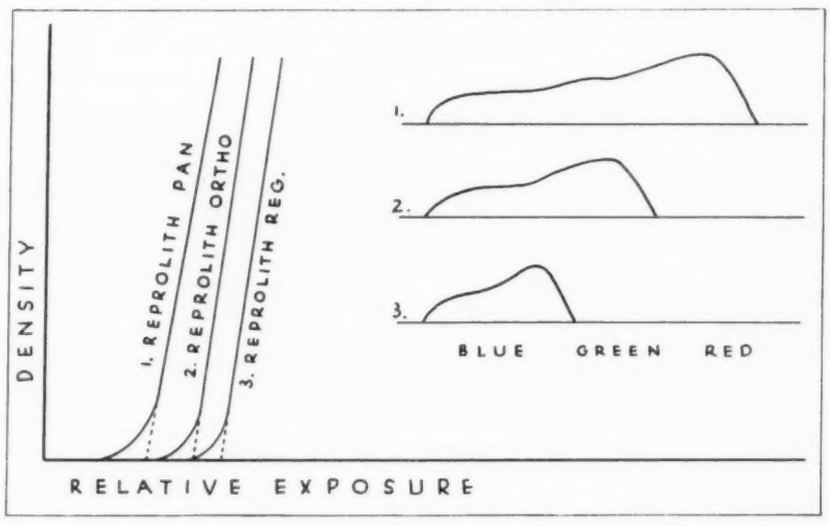


Fig. 2—Modern high speed films permit fleeting expressions to be captured. Photographs made under natural light, give exceptionally realistic effects.

Fig. 3—Photographs of groups, where the camera lens must be stopped down considerably to obtain field-depth can be made with the newest films without the result looking "forced". Note the excellent rendering of the candles even though the exposure time had to be short and a small lens aperture used.

ton. At that time the emulsion on this film yielded a contrast that was considered phenomenal for a dry-type emulsion. At best the film could be developed to gamma values of only four and no complementary orthochromatic emulsion was available to assist in producing high negative contrast when copying colored line originals. Intensifiers of one sort or another were in common use, as well as cutting-reducers, which were necessary to build up background density or to clean up the clear areas that often veiled over.

This bit of historical comment has been injected merely to elucidate the read progress made in recent years, for it is well known today that films are available which yield contrasts of truly phenomenal magnitude. Film emulsions yielding gamma values of 9 to 12 are not uncommon. Moreover, emulsions of highly orthochromatic and even panchromatic sensitivity in this same high contrast bracket are available.

Naturally, this remarkable change in the status of negative and positive emulsions for especial use in lithography was not made in one jump. As a matter of fact, no stagnant tendency has been prevalent during any period, for advances were literally reported several times during the course of say, a single year. At this writing a wide range of films can be had. A typical list is given below:

(1) A blue sensitive high contrast film, in two thicknesses: 6/1000 and 4/1000 inch.

(2) A highly orthochromatic film of high contrast in two thicknesses.

Fig. 5 (a, left, and b, right)—Modern photographic printing papers are much improved in respect to gradation characteristics over those available a few years back. Note the fuller scale of tones in photograph "a". The print was made on the latest type paper. Print "b" was printed on a type of paper quite commonly used only two years ago.

Fig. 4 (a and b)—Extra speed and improved color sensitivity allow the frequent use of filters in modern photography, giving good tone separation even under adverse photographic conditions, such as a poor light or a moving subject.

(3) A fully panchromatic film of high contrast, in one thickness: 6/1000 inch.

(4) A matte-back blue sensitive high contrast film, in 4/1000 inch thickness.

In Figure 1 are shown characteristic curves and color sensitivity diagrams for typical, presently available emulsions.

Such an array of emulsions gives almost unlimited possibilities and flexibility to the camera operator. No longer are intensifiers and reducers habitually used. This alone has permitted faster working methods, cleaner and less bothersome darkroom operations, and certainly, higher quality negatives and positives. In addition, colored copies seldom offer difficulties to the camera man. Even direct halftone color separations can be made from opaque colored originals and color transparencies. Emulsions have been improved not only in regard to gradation and color sensitivity, but at the same time properties which make them better suited to dot-etching have been incorporated. Several dot-etching procedures are now widely used with outstanding success.

Even the latitude of films for litho purposes has been improved—this, in spite of the fact that higher contrast is possible. Ordinarily such a statement would be paradoxical, because high contrast and wide latitude are not compatible. However, the latitude in modern emulsions is one of exposure-development, rather than straight exposure latitude. By this is meant, that two films exposed, for example, 30 seconds and 60 seconds respectively, can be made to yield useable negatives of quite good quality even though the best exposure might have been 45 seconds. To accomplish this the 30 seconds exposed negative would have been given somewhat extended development while the development of the 60 seconds exposed negative would have been slightly curtailed.

In a test to substantiate this statement satisfactory negatives were made using a range of exposures of from 25 to 90 seconds, controlling the results by development, although it was fur-

Fig. 6—Here is an example where new photographic flash exposure technique has been combined with ultra-high sensitive films to give fully exposed negatives in which all the detail and sharpness is preserved.

ther established that 40 seconds was the really correct exposure under the conditions used. Although a measure of exposure-development latitude is available, it is recognized that correct exposure is still the best assurance for good negative quality.

INDIRECTLY related to all the graphic arts is the ordinary photographic process. Upon the photographer the various methods of mechanical reproduction are dependent for a majority of the illustrations used. When the photographer has at hand new means for making better pictures, the improved quality of photographs is immediately reflected in better looking press jobs. The fact has almost become historical by now but within the past few years the films used by photographers have undergone revolutionary changes for the better. It was in the fall of 1937 that Agfa Ansco introduced Superpan Press film, the first of the new high speed types. Since this time these improvements have been extended to a wider range of films. In addition photographic paper emulsions have been improved appreciably.

Today poor light conditions and generally adverse photographic surroundings offer no barrier to superior photographic quality. Photographers no longer need say, "Well, this is good considering the poor light conditions." Flat, grey photographic prints caused by underexposure and low film contrast are never easy to reproduce. Furthermore, with such originals the lithographer works somewhat at a disadvantage in comparison with craftsmen in other graphic arts fields. Fortunately, not many photographers are submitting such inferior prints today.

More specifically, here are some of the ways in which new film products have made possible finer photographic results:

(1) Higher film speed (over four times the speed of films a few years ago) permits,

(a) sharper results in photographing fast moving objects.

(b) prints of better general quality because of fuller exposure made possible under adverse light conditions.

(c) better detail in photographs because of the greater permissible stopping-down of the lens under given conditions.

(d) coverage of a wider range of subjects.

(e) more frequent use of filters resulting in many cases in improved contrast and tone separation.

(2) Finer grained emulsions allows,

(a) better resolution and registration of fine details.

(b) enlargements of greater size to bring out local details.

(3) Improved color sensitivity results in,

(a) better black and white tone rendering of colored objects.

(b) more frequent use of filters.

Illustrations to bear out some of these points are shown in Figures 2, 3, 4, and 5.

As stated above, film improvements do not represent the entire advance which has been made. Photographic papers are available today having definitely superior gradation characteristics over previously available items. It has long been a problem to the photographer to translate to paper prints the complete detail contained in his negatives. One of the chief reasons for inability in this direction is the fact that photographic papers inherently are limited in the range of tones which they can accurately record. This inherent limitation still exists, but within the limits of brightnesses reproducible in a print there was and still is much room for improvement in the manner of tone separation from shadows to highlights. In this, new photographic papers having so-called better "straight line" characteristics have proved of substantial value. In Figure 6 are shown two prints; one made on an older type paper and the other made on the improved type. It will be noted that the superior registration of detail throughout the full scale of the second print results in a much better reproduction. This is an improvement of pronounced significance to the lithographic trade since it contributes so much to the general uplift in the standard of photographic print quality, which lithographers in turn will be able to utilize in setting higher standards of reproduction printing.

It would simply be foolhardy to leave readers with the impression that the foregoing advances represent the total contributions which the photographic industry has made toward the betterment of lithography. On the contrary, this has been a most succinct treatment. However, many advances do not lend themselves easily to popular discussion. For example, recent discoveries that have led to marked improvement in the sensitization and stabilization of emulsions could hardly be properly presented here, although these factors are none-the-less of importance to both the manufacturer and the consumer. Moreover, many indirectly related improvements are so broad in scope that they require separate and more explicit discussions than can be given here. To cite an example, new emulsions for use in the making of color separation negatives now lead to negatives of unusually fine balance. However, this is a topic in itself.

Knowing the remarkable progress effected within the past few years, although made in the face of theoretical predictions to the contrary, it seems unwise at this time to predict just what the future holds in store. There is only one thing certain—progress will be made. In what directions and of what magnitude no one can say. It is likely, though, that high contrast films for litho use will be made steeper yet, and of higher sensitivity. The day will probably come when good line shots can be made with only 10 seconds exposure using standard lighting equipment. This means that halftones could be exposed in the proximity of one minute. Higher film contrast is hardly required, but no doubt the additional speed that is likely to be acquired will be accomplished without upsetting the high standards now established. Film shrinkage, which has been reduced immensely in past years, is a possible avenue for the further march of progress.

All in all, lithography can confidently look forward to enhancement as an outcome of progress sure to be made in the photographic industry.

Have you renewed your subscription to MODERN LITHOGRAPHY? Better do it NOW!

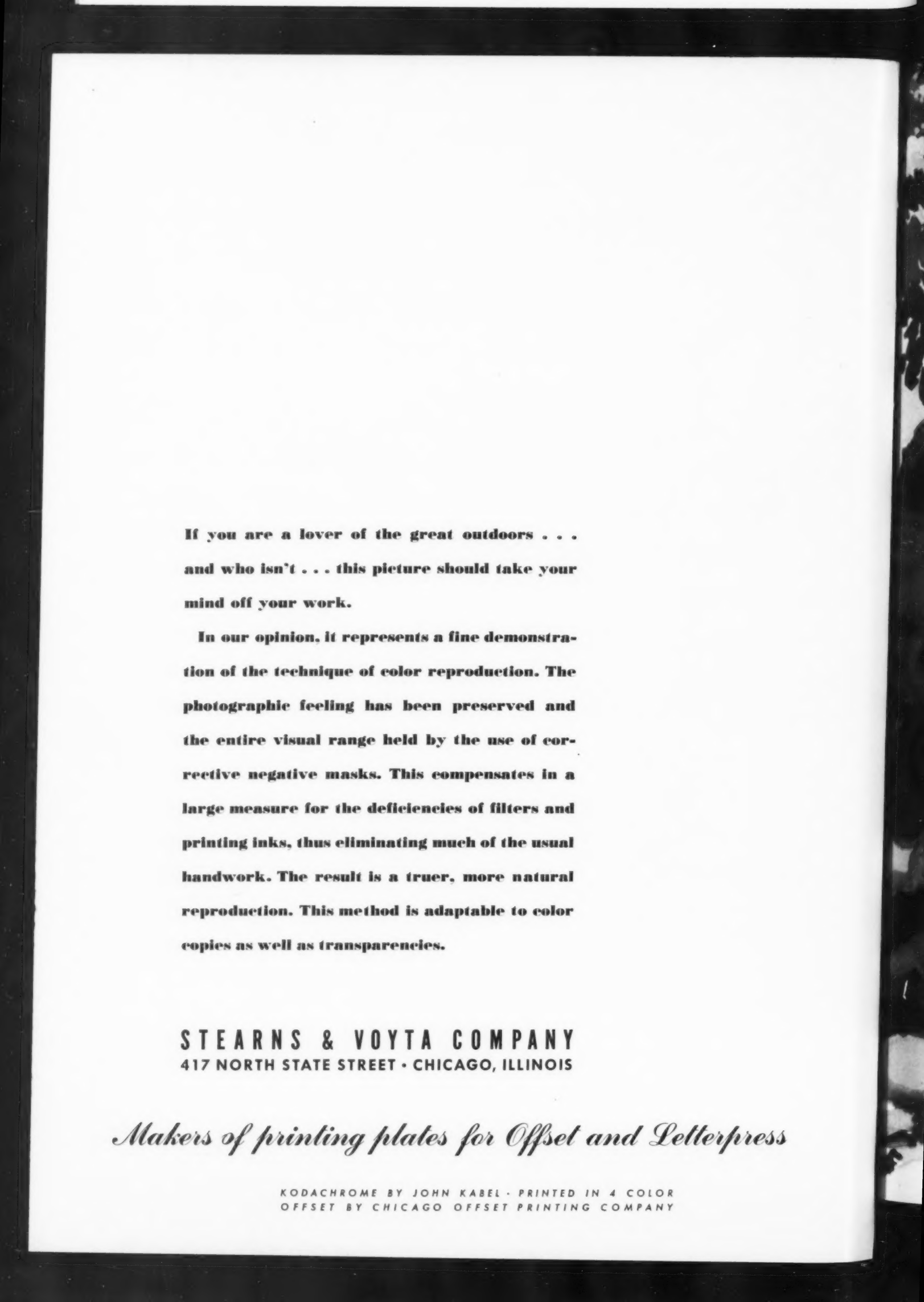
"Look, M[illegible] Ferguson . . . I've been framed!"

MARGIE THE MODEL

Margie the model is "Living Lithography" at its best—four-color reproduction from Kodachrome photographs — a process which has been pioneered and perfected by Western with outstanding success in recent years. In a number of instances, Kodachrome posters produced by Western for nationally known advertisers and intended for brief window use, have been liked so well by dealers, that they have had them framed at their own expense for more permanent display. Here is a real picture of dealer and consumer acceptance of this proved and effective method of putting across a dramatic message to Mr. and Mrs. America. The same process, of course, has been adapted with equal success to many other forms of advertising, from large posters to convenient size envelope stuffers. Margie the Model and the story of reproduction value that she portrays are bringing higher value, greater satisfaction and a definite saving to more and more well known advertisers day by day.

WESTERN PRINTING & LITHOGRAPHING COMPAN

RACINE, WISCONSIN POUGHKEEPSIE, NEW YOR



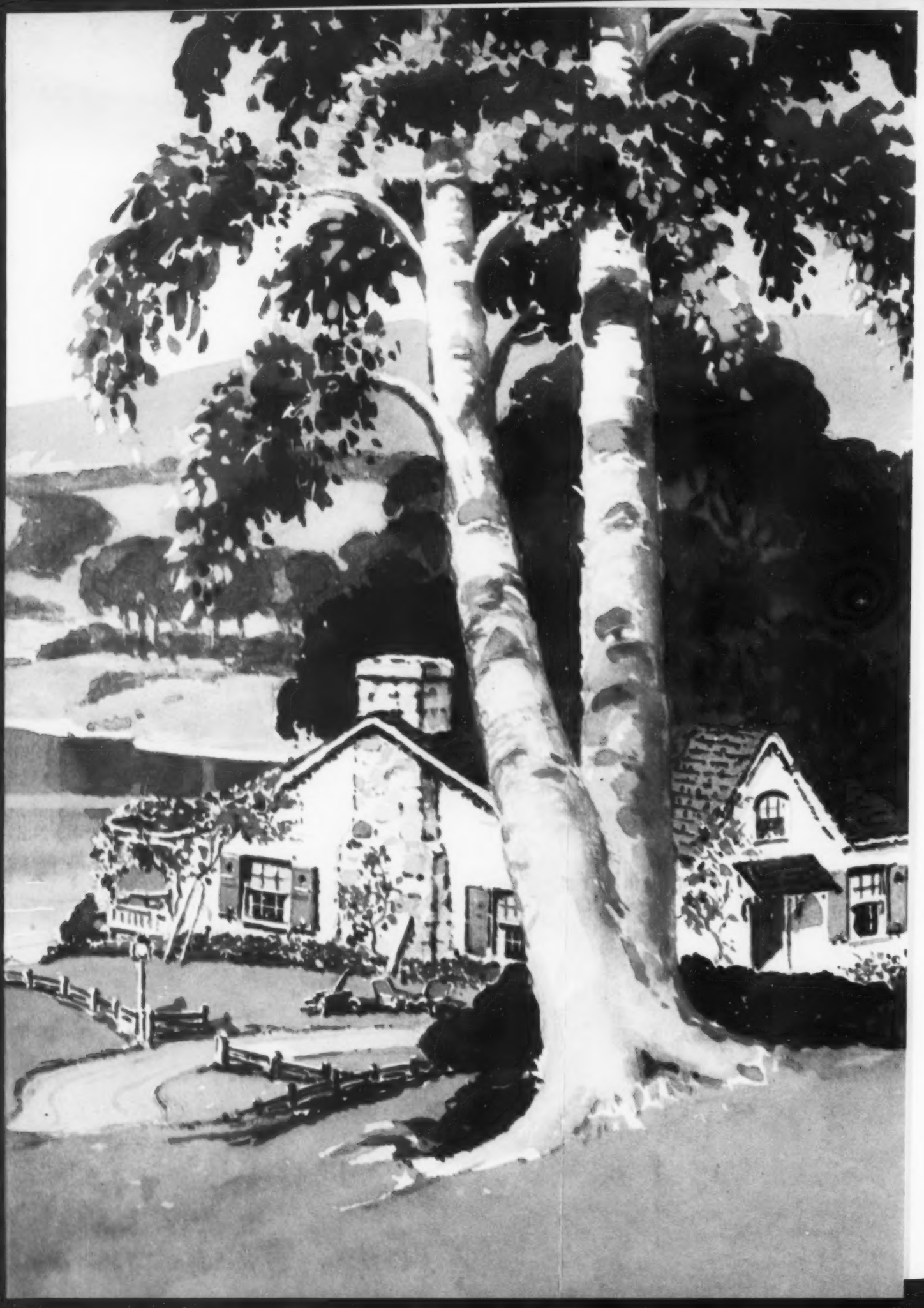
If you are a lover of the great outdoors . . . and who isn't . . . this picture should take your mind off your work.

In our opinion, it represents a fine demonstration of the technique of color reproduction. The photographic feeling has been preserved and the entire visual range held by the use of corrective negative masks. This compensates in a large measure for the deficiencies of filters and printing inks, thus eliminating much of the usual handwork. The result is a truer, more natural reproduction. This method is adaptable to color copies as well as transparencies.

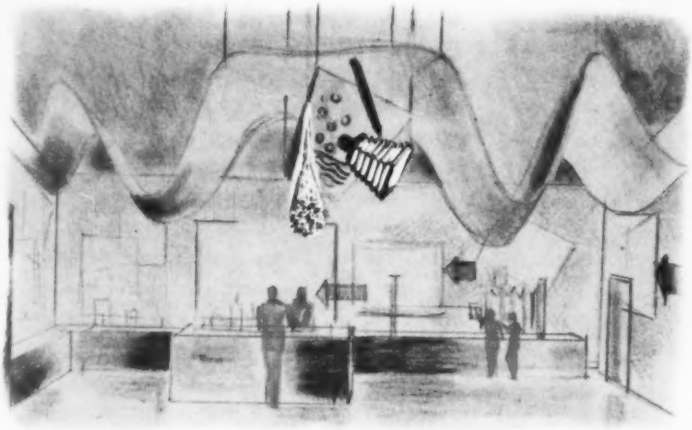
STEARNS & VOYTA COMPANY
417 NORTH STATE STREET • CHICAGO, ILLINOIS

Makers of printing plates for Offset and Letterpress

KODACHROME BY JOHN KABEL · PRINTED IN 4 COLOR
OFFSET BY CHICAGO OFFSET PRINTING COMPANY



A story of industrial progress from 1796 to the present



What's "Living Lithography?"

Boxes, wraps and bottle caps,
Banners, blow-ups, booklets, maps,
Cartoons, charts and paper signs,
Inserts, outserts, valentines,
Broadsides, folders, stamps and toys,
Games for problem girls and boys.
Puzzles, posters, playing cards,
Stickers, seals and art awards
Looking for your favorite item?
We have 'em all . . ***ad infinitum!***

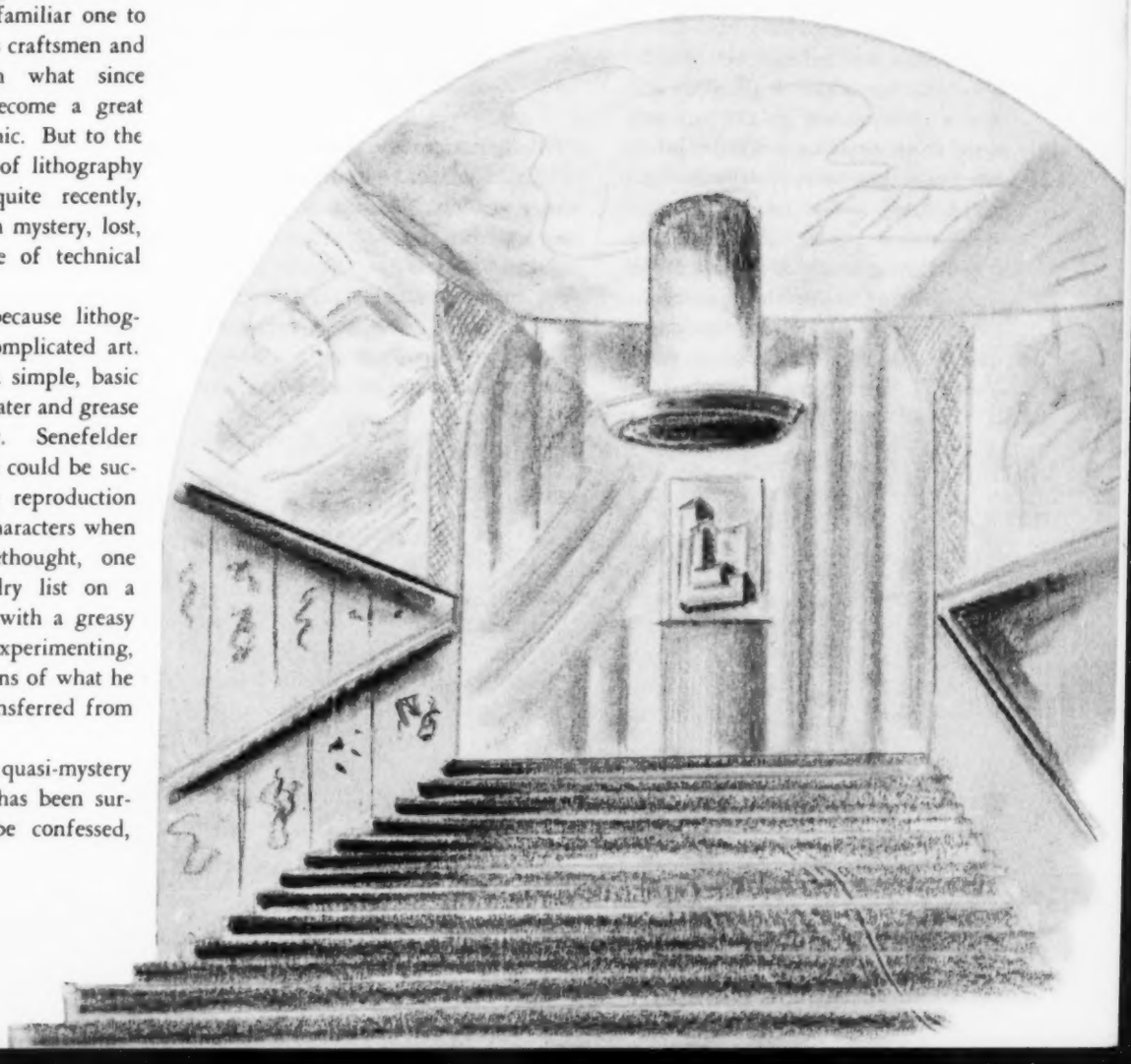
—William A. Courtenay, III

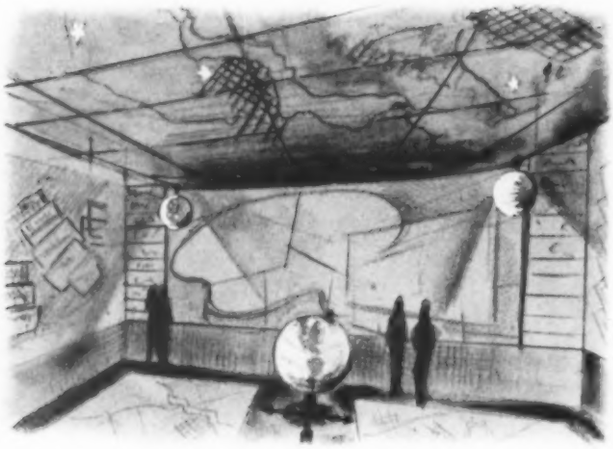
LIVING LITHOGRAPHY

THE story of lithography—of how an obscure actor and composer of music by the name of Alois Senefelder chanced on the happy discovery in 1796 which led to the development of the principles of lithographic printing—is a familiar one to most artists, graphic arts craftsmen and others associated with what since Senefelder's day has become a great industry—the lithographic. But to the average layman the art of lithography has remained, until quite recently, somewhat enshrouded in mystery, lost, as it were, in a tangle of technical jargon.

This has not been because lithography is essentially a complicated art. In fact, it is based on a simple, basic principle: namely, that water and grease are mutually repellent. Senefelder found that this principle could be successfully applied in the reproduction of images and graphic characters when he, quite without forethought, one day scribbled his laundry list on a piece of polished stone with a greasy crayon, and, after some experimenting, discovered that impressions of what he had written could be transferred from the stone to paper.

On the contrary, the quasi-mystery with which lithography has been surrounded has, it must be confessed,

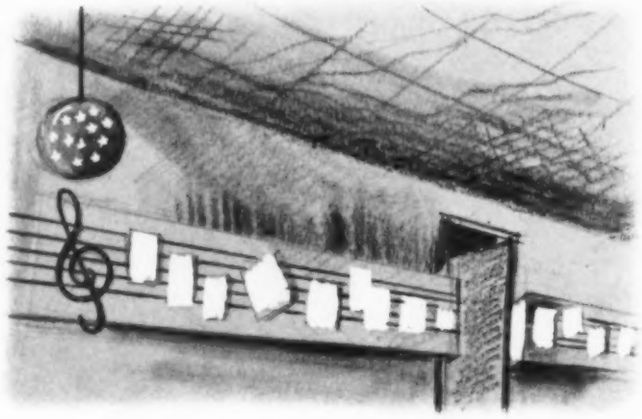




been largely due to the lithographer himself. Until just recently he has been singularly, though unintentionally, uncommunicative. What at first glance might appear, however, to have been a pure disregard on the part of the lithographer for the public, turns out, on further examination, to have been a natural consequence resulting from the rapid and unprecedented growth—unprecedented for the graphic arts, that is—which lithography as a commercial printing art has enjoyed since the turn of the century. Technological improvements were introduced at such a rapid rate that the industry as a whole had little time for self-conscious reflection. It was a little like a growing boy in the first awkward stages of young manhood, gawky, none too self-possessed, shy and wholly inarticulate.

AT the beginning of the last decade, however, as the future possibilities of lithography became increasingly apparent, a growing consciousness on the part of a few of the industry's members of the important role the art had begun to play in the industrial and business life of the nation began to take root. They saw more and more of the products of graphic art reproduction turning to lithography as the coming process. Color was the watchword of the day in advertising, and lithography, from its earliest beginnings had been prominently identified with the reproduction of fine color effects. They saw posters, postcards, blow-ups, booklets, book jackets and books; bottle caps, broadsides, boxes, calendars and car cards; catalogs, displays, labels, inserts, maps, menus and music—to name just a few—rolling off of lithographic presses in increasing numbers, and decided, rightly enough, that here was a story that needed telling! Lithography had come of age!

One of the first indications of the fact that the lithographic industry had grown up was the formation, in 1935, of an Educational Department by the Lithographers National Association, of New York, which numbers among its members the leading lithographers of the United States. The LNA's Educational Department was organized along broad public relation lines, acting as a clearing house for the lithographic industry in the distribution of concise, informational data about the lithographic process to the public, and as such it has rendered a valuable service and one that grows more important with each year.



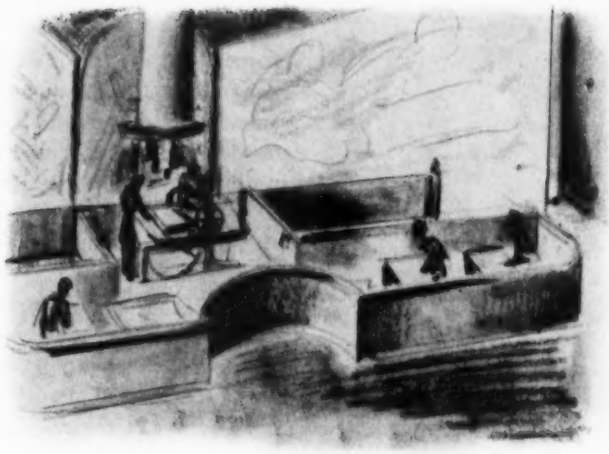
No more striking proof of the progress which the lithographic industry has made in recent years, however, can be imagined, than the current Living Lithography Exhibition, being held during the entire month of October, at Philadelphia, under the joint sponsorship of the Educational Department of the Lithographers National Association and the Philadelphia Art Alliance. Here, eloquently articulate, are displayed the living products of a colorful craft at its finest! The Philadelphia Art Alliance, its three floors fairly bursting at the seams with lithographed books, displays, magazines, pottery, textiles, posters, packages, canned products, catalogs, maps, music, yes, and a miniature lithograph plant—

is a living testimony that living lithography is very much alive indeed!

ON THIS and following pages we give you a brief preview and guide to the largest collection of lithography ever exhibited. The accompanying sketches are the work of Clayton Whitehill, who designed the exhibition.

Guide to the Galleries

The casual visitor to the Art Alliance—and we are told that some 50,000 are expected during the course of the exhibition—will get his first introduction to Living Lithography at the entrance, where draped over and around the doorway of the old stone mansion is a flaming montage of lithographed posters, festoons, banners and



displays representing every color of the spectrum.

Once inside the hallway, he will find himself facing a receiving line of beautiful girls, the life-like lithographed reproductions of point-of-purchase advertising found on all the counters, floors, windows and shelves of all the retail stores in the land.

Members' Lounge

Next, if he follows our directions, he will pass into the Lounge and a collection of the oldest commercial lithograph collections in the United States. This is the collection which traces the growth of commercial lithography in Philadelphia, famous for its early contributions. The work of Bass Otis, Robert Peale, P. S. Duval and others will invite his inspection.

Main Hallway

He will find, upon emerging from the Lounge that the spacious hallway on both sides is banked with glass-enclosed cases containing, on the one hand, brilliant examples of lithographed pottery and dinnerware, lamps, and silverware, some in fourteen colors, and all designed by the leading artists of the country; and on the other hand, hundreds of examples of lithographed books, some popular, some classic, some esoteric, some bibliotheca, some incunabula, some belles lettres—all outstanding examples of lithography.

Dining and Rittenhouse Room

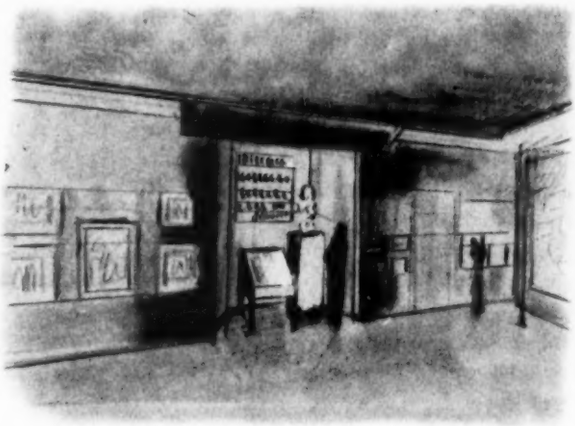
Upon coming to the end of the hallway, the visitor will find himself on the threshold of the Philadelphia Art Alliance's Club Dining Room, the walls of which are massed with travel resort posters designed to harmonize with President Roosevelt's Travel-America Proclamation.

Bar

Passing through the dining room to the right, Mr. Visitor will come smack up against the Art Alliance Bar. As he dawdles here he can drink in some of the finest specimens of lithographed advertising the brewers, vinters and distillers are currently using in luring the thirsty.

Garden Dining Room

Back into the dining room again and out the opposite door, the visitor will next, if he is with us still, step into the Garden Dining Room where, appropriately, will be found hundreds of colorful lithographed seed packets, bags and containers of every description.



HERBERT HOSKING, General Chairman, Living Lithography Exhibition

Gallery B

Re-entering to the main hallway, we find just ahead Gallery B. This is the keystone center of the entire Living Lithography Exhibition—the Technical Room. Here the modern adaptations and developments of Senefelder's discovery are described progressively, in direct relation to each of the Living Lithography displays which the visitor finds throughout the rest of the building. Here is told in a graphic way the story of the technical research that lies behind the accomplishments of the lithographic industry, a story of foresight and vision without which this Exhibition would have been impossible.

Gallery A

Leaving the Technical Room, we enter Gallery A which tells the story of Philadelphia's accomplishments in art lithography. Examples of the work of Bass Otis, Pennell, Max Rosenthal, Duponchel, Bancou, Canova, all early Philadelphia lithographers, are on display.

Now, one final look around the first floor before we leave for the second, and we see, beyond the exhibits that immediately meet the eye, that practically every square inch of wall space in the hallway is covered with Living Lithography in the form of designed wrapping paper, leather patterns, package wraps, sheets of lithographed tin and decalcomania work on wood-grained and marble surfaces. And as we stand at the bottom of the staircase and look up we find that the entire stairwell is covered. There are zinc plates on the walls carrying reproductions, ready to be put on the press. We inspect them as we mount the stairs. Against the zinc-gray background on our right appears an alcove dramatically draped with lithographed textiles, decorative chintzes and dress goods of every material. High-lighted against this colorful background is the Living Lithography symbol in red, white and blue.

Second Floor Hallway

In the hallway on the second floor the visitor will see a small lithographic shop where actual production of lithography will be demonstrated on October 2, 9 and 18. However, the production of lithography may be seen on a much larger scale by visiting any of the large Philadelphia plants. Ketterlinus Lithographic Mfg. Company, for example, is holding open house for visitors one day a week. Further information about days, etc., may be obtained at the information desk in the Art Alliance building.

Gallery E

To the right of the hallway is the large Lithography in America Exhibition. Here may be seen examples of the earliest lithographs, including actual work produced by Senefelder, selections from the Audubon series, early Currier & Ives prints, and many theatrical and circus posters belonging to the gaslight era.

Music Room

From the Lithography in America collection the visitor, by crossing to the opposite room, will find himself in a large room featuring lithographed point-of-sale advertising for drug and grocery stores. Model stores have been built and the lithographed products will be displayed in their functional settings. Window displays, floor stands, counter merchandisers, danglers, festoons, packages of all kinds, banners and posters are among the items shown.

Gallery D

Next, to the lithographed music gallery and to one of the most interesting exhibits of the entire show. Here one entire section will be devoted to an outstanding collection of lithographed music covers by Scarlatti, Dwiggins and others. Lithographed albums for records will also be displayed.

Passing on, throughout Gallery D, the visitor will find the walls on both sides covered with one of the most familiar forms of reading material—car cards. They have been collected from all parts of the country and trace the development of the art technique in this increasingly art conscious medium.

An attraction which will catch the visitor's eye as he passes down the corridor is the immense, illuminated,

CLAYTON WHITEHILL, Designer Living Lithography Exhibition

lithographed globe of the world suspended from the ceiling and revolving on its axis. Every foot of space above and around the globe will also be decorated with maps of every description.

Third Floor Gallery

On the third floor, after having mounted the stairs, the walls of which are completely covered with lithography, we find sections devoted to specialized fields, such as lithographed bank checks, letterheads, booklets, folders, calendars, coupons, certificates, catalogs, textbooks, post cards, menus, magazines, etc.

And that, ladies and gentlemen, concludes our brief preview! Naturally, we have been able to cover only the highlights. We have said nothing about the many sidelights you will find to attract you. For example, at the Art Alliance Tobacco Stand on the first floor are many lithographed examples of cigar bands, cigar box covers, snuff labels, chewing tobacco bags, etc. And we didn't mention the large collection of lithographed wall paper, and—well, we could go on forever remembering the things we forgot to tell you about. So take our advice and see it all for yourself!

SOME NOTES ON Platemaking

By I. H. Sayre

Instructor, Platemaking and Camera, Chicago School of Printing and Lithography

IT SEEMS necessary to review a few points on albumin platemaking whenever anything is written on offset platemaking. So much has been said about long-lived albumin plates that platemakers shudder at mention of the topic . . . yet all recommendations and formulas given in an effort to increase plate life are valueless unless a few fundamental rules are followed.

Some years ago, the Lithographic Technical Foundation, Inc. brought out a booklet entitled "The Albumin Process of Photolithography", in which it set forth the merits of measuring the density of all solutions with a hydrometer to standardize and systemize the procedure of making plates, in order that the operator might have some means of eliminating the variables in albumin platemaking and be able to study his failures intelligently. The scientific procedure recommended by the Technical Foundation did not add to the time necessary for the preparation of solutions, nor did it slow down production. On the contrary, having stock solutions on hand of a known density made ready for mixture, speeded up production. The method described in the Foundation booklet is sound and efficient. Why, then, do not more operators adopt it?

We have asked this question dozens of times. Usually the reply is: "I followed the practice for a month or so and found that if I measured my solutions carefully in the beginning by dry weight, the variation in the resulting solution was negligible." This may or may not be true, but using a hydrometer to test the density of a solution is a check against possible error in mixing and takes but a second or two in time. It has been my experience that if this procedure has nothing else to recommend it, its very routine gives birth to the habit of working more carefully and systematically. It has much more than that in its favor, but that alone is reason enough to put it into practice.

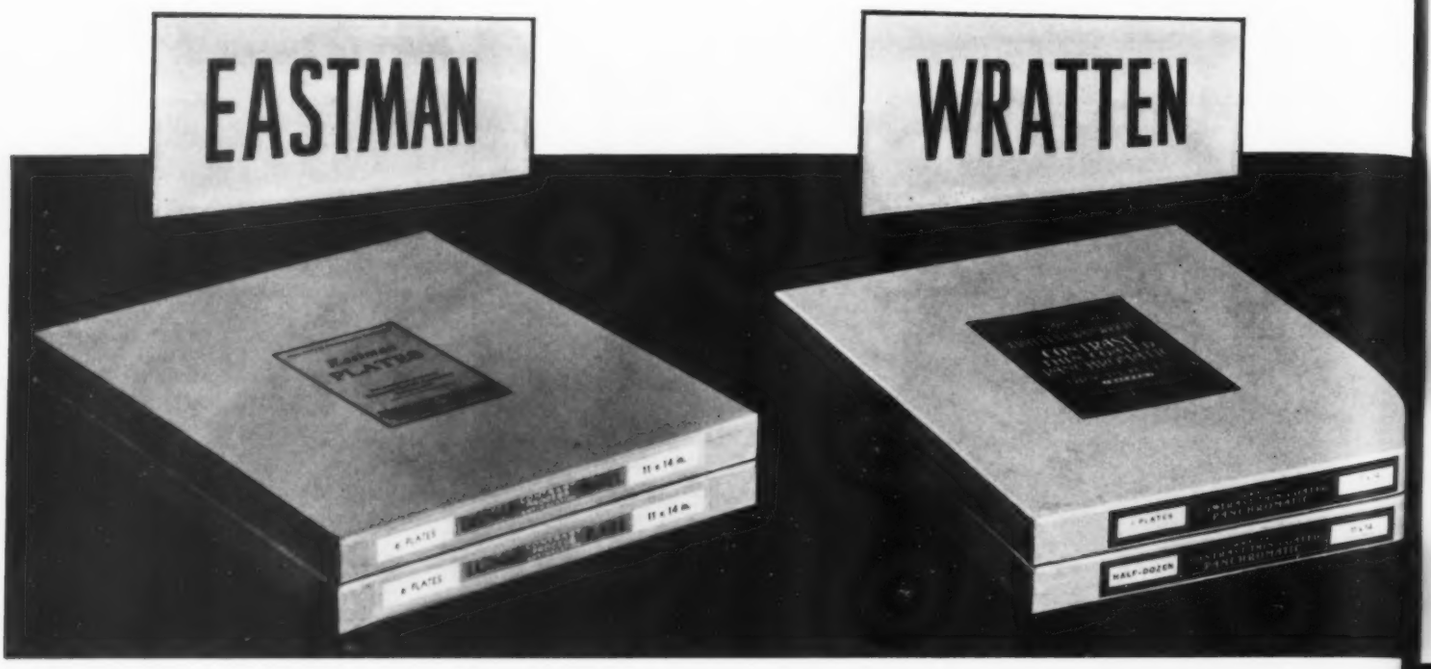
It is not enough to control the density of the albumin coating solution used on albumin plates. The operator must follow through by controlling the temperature and speed of his whirler; the distance of his lights must be constant, or if changed, exposures must be calculated according to the law of inverse squares; the exposures should be regulated according to the prevailing humidity. The maximum amount of exposure time should always be given to an albumin plate without inducing a lateral spread of the image, and the coating should be as thin as it may be for development. The mixture should be a ratio of albumin to ammonium-dichromate, known to produce maximum light hardening qualities.

When high relative humidity prevails, the exposure time should be shortened, inasmuch as the treatment necessary to recover an over-exposed plate weakens the image. To change the exposure time one per cent for every degree of change in relative humidity is sufficient to forestall over-exposure. For example, if the relative humidity rises ten degrees and the exposure time formerly given was three minutes, the new exposure time would be ten per cent less, or approximately two minutes and forty seconds. When a thin coating, such as is most desirable in albumin platemaking, is used, this decrease of 18 or 20 seconds in the exposure time makes a marked difference in the quality of the print.

WHILE on the subject of albumin plates, etching should also be mentioned. Since so many formulas in use today have a good desensitizing action on the non-printing areas of the plate, but attack the image, causing it to swell and walk off, the following practice is recommended not only because it helps preserve the image,

(*Turn to page* 46)

Four trade names that mean **QUALITY,**



PHOTOLITHOGRAPHERS place implicit faith in four lines of sensitized materials, all Eastman-made. Whether it's Eastman, Wratten, Kodalith, or Kodagraph, the cameraman knows that he can rely on its unvarying ability to do its specific work surpassingly well. Each item in the list on the next page is manufactured under rigid laboratory control. With one of these materials behind the lens, the consistent production of top-notch negatives becomes a simple matter.

As the expanding industry indicates new requirements, new products are ready to fill the bill. Naturally, the progressive lithographer is quick to adopt a new material, made specifically to fit a need, rather than to stretch the capabilities of an old favorite far beyond the work for which it is intended. In both black-and-white and color reproduction, halftone and line, there's an Eastman, Wratten, Kodalith, or Kodagraph material particularly fitted for the job.

Run through the list with your negative production in mind. Then consult the Eastman demonstrator and your Graphic Arts dealer.

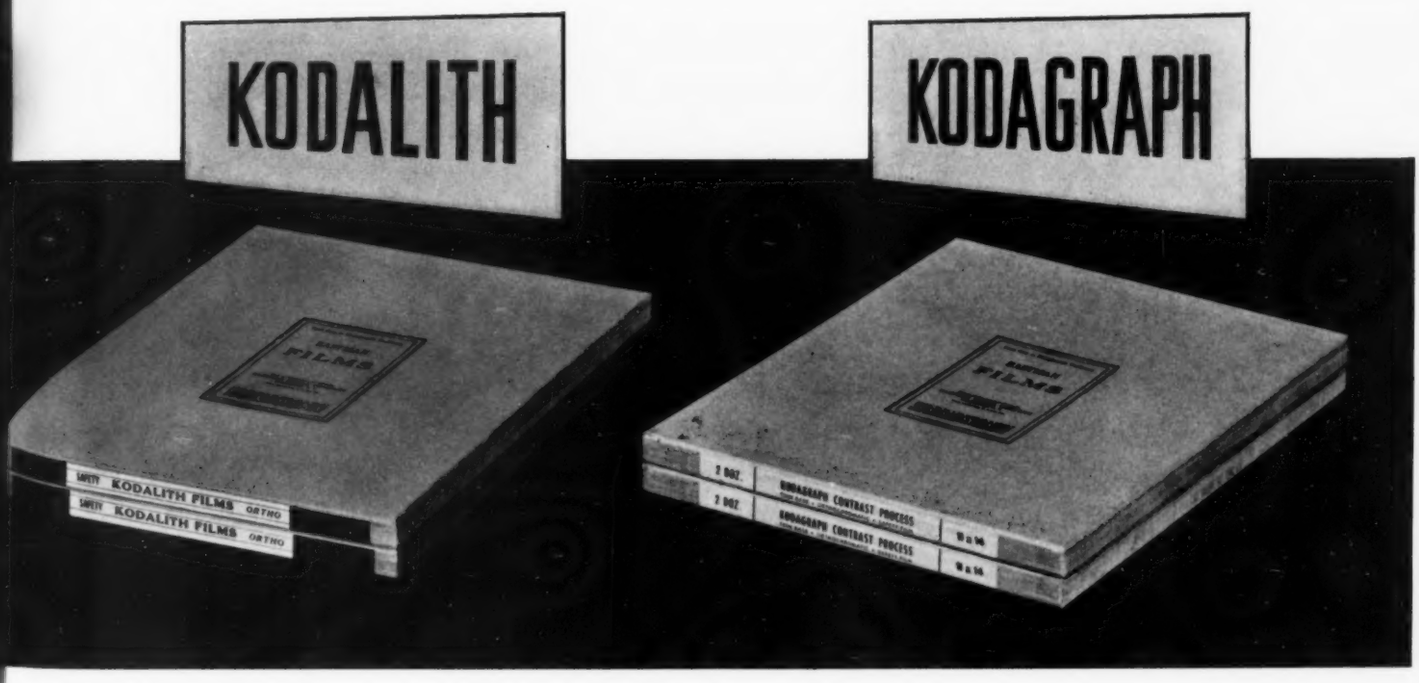
EASTMAN KODAK COMPANY

UNIFORMITY, DEPENDABILITY

EASTMAN SENSITIZED MATERIALS for the Lithographer

Eastman Contrast Process Plates
Eastman 33 Plates
Eastman Infra-Red Sensitive Plates
Eastman Infra-Red Process Plates
Eastman Commercial Film
Eastman Process Panchromatic Film
Eastman Tri-X Panchromatic Film
Wratten Panchromatic Plates
Wratten C.T.C. Panchromatic Plates
Wratten Process Panchromatic Plates
Wratten Tricolor Panchromatic Plates
Wratten Tricolor Matte Panchromatic Plates

Kodalith Regular Film
Kodalith Orthochromatic Film
Kodalith Halftone Film
Kodalith Thin Base Film
Kodalith Transparent Stripping Film
Kodalith Stripping Film Super Speed
Kodalith Negative Paper (Regular)
Kodalith Orthochromatic Negative Paper
Kodalith Thin Base Paper
Kodalith Orthochromatic Plates
Kodagraph Contrast Process Thin Base Film
Kodagraph Process Panchromatic Film



Visit the Eastman Exhibit at the Chicago Convention

Reserve plenty of time for a thorough inspection of the Eastman Exhibit at the annual convention of the National Association of Photolithographers at the Palmer House, Chicago, Illinois; September 26, 27, and 28. Form the habit of dropping in regularly between sessions. Latest developments will be on display. Bring along any photographic problems you may wish to discuss with the Eastman representatives.

GRAPHIC ARTS DEPT., ROCHESTER, N. Y.

but it also helps prevent any spreading of an albumin image, thoroughly desensitizes the metal and produces a surface similar to that of a deep etched plate. For this reason the pressman may use less fountain solution. It is simply this:

The plate is developed in the usual way and washed under running water. Instead of applying a plate etch before gumming the plate, however, the etch is omitted and the plate is rubbed over with any good deep etch coating solution made up of bichromated gum arabic. The solution is polished down carefully so that none of it encrusts the image, fanned dry, and exposed in the vacuum frame for about three or four minutes, depending on the length of time needed to harden any bichromated coating where plates are being made. No masking is done, of course, as the entire plate is exposed. After exposure, place the plate under running water and wash until all the feeling of slickness disappears from the metal. This takes less than five minutes. The plate is then gummed up and washed out with asphaltum or other wash-out solution in the usual way. The Lithographic Technical Foundation, Inc., has a formula for bichromated gum in its Bulletin No. 3, entitled "The Etching Operation in Lithography", which accomplishes the same thing, probably a little more efficiently than deep etch coating solutions.

The beauty of the above method is that the additional exposure tends to harden the plate, and as there is no acid in the solution which is applied, the image is not attacked. With this process, less fountain solution is needed, and indeed a plate may run completely dry and still be redeemed by sponging.

There are a number of hardening solutions which may be used to strengthen an albumin plate if continued weaknes is experienced. Among the best of these is the practice of using a deep etch lacquer, Dubar, Platehelp, No-wok, or some such solution just after exposure and before the developing ink is applied. Merely apply a smooth, even coating of one of these solutions, polish dry and then apply developing ink and proceed in the usual manner to develop the plate. Washing out a completed plate with a sensitive bitumen (applied like asphaltum) and giving an additional exposure will also prolong the life of the image and make it impervious to strong etching solutions. (This last process is described in "Photography and Platemaking for Photo-Lithography" by I. H. Sayre).

Many firms are now using a positive reversal process which derives from the old Vandyke process revived by the introduction of the new Vandercook Proof Press for offset. In this process a positive print is taken on transparent paper or other substance and used as a positive, no film being necessary. The plate is coated with a deep etch coating solution, or a simple bichromated gum formula may be used, and exposure made using the proof in place of film. Following is a suitable formula:

Coating Solution.

Gum Arabic Solution (14°Bé)—24 ozs.

Ammonium Dichromate Stock Solution (14.2°Bé)—8½ ozs.

Ammonium Hydroxide (28%)—1¼ oz.

Developing Solution.

Calcium Chloride (40°Bé)—64 ozs.

Lactic Acid (85%)—3½ ozs.

The plates may be developed with

(*Turn to page* 85)

CHART SHOWING DECREASE IN EXPOSURE TIME WITH RISE IN RELATIVE HUMIDITY

To find the correct exposure time at the present relative humidity, coat an albumin plate and make several test exposures increasing each one from thirty seconds to 1 minute. Select the best print and note the exposure time given that print. Then consult the chart below, find the prevailing relative humidity under the humidity column and following the figures from left to right horizontally across the page, locate the exposure time given the satisfactory print. The column under which this exposure time is found is used for all future exposures. For example if the relative humidity is 50 and the best exposure was made at 2½ minutes, then reading from left to right 2'30" is found under the 7th column, and this column should be marked and used for future exposures. When the relative humidity changes to 33, the correct exposure would be 3 minutes, and likewise if humidity goes to 70, exposure would be 1 minute 54 seconds.

Percentage of Decrease	Relative Humidity Degrees	Exposure Time in Sec.	Min.	Min.	Min.	Min.	Min.	Min.
100	33	60	1'30"	2'	2'30"	3'	3'30"	4'
97	36	58	1'27"	1'56"	2'25"	2'54"	3'23"	3'52"
95	38	57	1'25"	1'54"	2'22"	2'51"	3'19"	3'48"
93	40	56	1'24"	1'52"	2'20"	2'48"	3'16"	3'44"
91	42	55	1'22"	1'50"	2'17"	2'45"	3'12"	3'40"
89	44	54	1'21"	1'48"	2'15"	2'42"	3'9"	3'36"
87	46	53	1'19"	1'46"	2'12"	2'39"	3'5"	3'32"
85	48	51	1'16"	1'42"	2'7"	2'33"	2'58"	3'24"
83	50	50	1'15"	1'40"	2'5"	2'30"	2'55"	3'20"
81	52	49	1'13"	1'38"	2'2"	2'27"	2'51"	3'66"
79	54	48	1'12"	1'36"	2'	2'24"	2'48"	3'12"
77	56	46	1'09"	1'32"	1'55"	2'18"	2'41"	3'4"
75	58	45	1'7"	1'30"	1'52"	2'15"	2'37"	3'
73	60	44	1'6"	1'28"	1'50"	2'12"	2'34"	2'56"
71	62	42	1'4"	1'26"	1'47"	2'9"	2'30"	2'52"
69	64	41	1'1"	1'22"	1'42"	2'3"	2'23"	2'44"
67	66	40	1'	1'20"	1'40"	2'	2'20"	2'40"
65	68	39	58	1'18"	1'37"	1'57"	2'16"	2'36"
63	70	38	57	1'16"	1'35"	1'54"	2'13"	2'32"
61	72	37	55	1'14"	1'32"	1'51"	2'9"	2'28"
59	74	36	54	1'12"	1'30"	1'48"	2'6"	2'24"
57	76	35	52	1'10"	1'27"	1'45"	2'2"	2'20"
55	78	34	51	1'8"	1'25"	1'42"	1'59"	2'16"
53	80	33	49	1'6"	1'22"	1'39"	1'55"	2'12"
51	82	31	46	1'2"	1'17"	1'33"	1'48"	2'4"
49	84	30	45	1'	1'15"	1'30"	1'45"	2'
47	86	29	43	58"	1'12"	1'27"	1'41"	1'56"
45	88	28	42	56"	1'10"	1'24"	1'38"	1'52"
43	90	27	40"	54"	1'17"	1'21"	1'34"	1'48"

Table from "Photography and Platemaking for Photo-Lithography", by I. H. Sayre

An Invitation

TO ATTEND OUR DISPLAY

In Suite 833

AT THE PALMER HOUSE... CHICAGO

During the

NATIONAL ASSOCIATION OF
PHOTO LITHOGRAPHERS CONVENTION

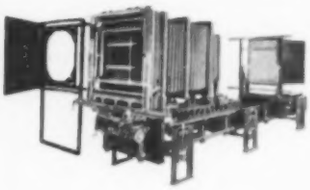
September 26 to 28, 1940

WHERE WE WILL BE PLEASED
TO WELCOME
OUR MANY FRIENDS

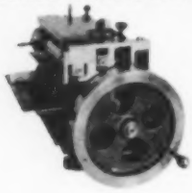
Rutherford Machinery Co.

DIVISION: GENERAL PRINTING INK CORPORATION

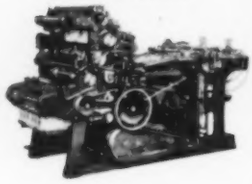
STEP AND REPEAT CAMERAS



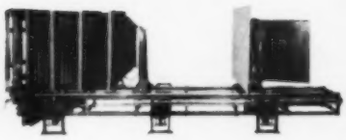
LABORATORY COATING MACHINES



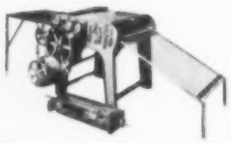
OFFSET PRESSES



PROCESS CAMERAS



PRESS PLATE WHIRLE



FLAT TIN BRONZING MACHINES

LICENSE TAG COATING MACHINES

LITHOGRAPHIC HAND PRESSES

OFFSET COLOR PROVING PRESSES

VACUUM FRAMES

METAL DUSTING MACHINES

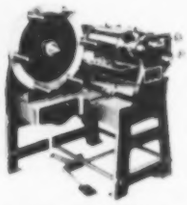
ROLLER EMBOSSING MACHINES

"STREAMLINE" SPOT COATING MACHINES

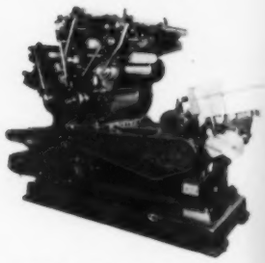
SUCTION ENLARGING BACK FOR FILM OR PAPER NEGATIVES

"STREAMLINE" METAL COATING MACHINES

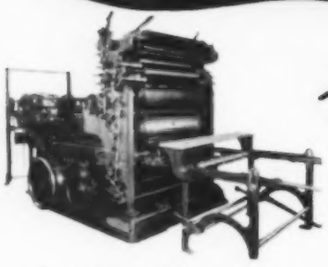
RUBBER TRANSFER CYLINDER HAND PRESSES



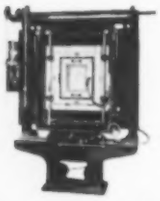
COLLAPSIBLE TUBE COATING MACHINES



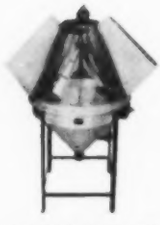
SPECIAL MULTI-COLOR DRY OFFSET PRESSES



"STREAMLINE" ROTARY METAL DECORATING PRESSES



JUNIOR PHOTO COMPOSING MACHINES

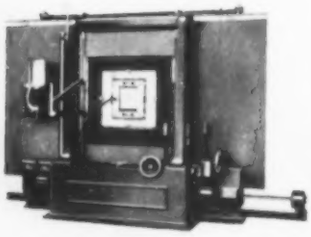


WHIRLERS FOR GLASS PLATES

TWO COLOR TUBE COATING MACHINES

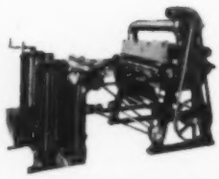
PHOTO-LETTERING MACHI

GRAINING MACHINES



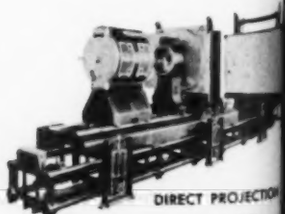
PRECISION PHOTO COMPOSING MACHINES

AUTOMATIC SUCTION PILE FEEDERS (attached to Coating Machine)



AUTOMATIC PILE LIFTS (attached to Dusting Machine)

MULTI-COLOR COLLAPSIBLE TUBE PRINTING MACHINES



DIRECT PROJECTION MACHINES

Rutherford

MACHINERY COMPANY

DIVISION - GENERAL PRINTING INK CORPORATION

MAIN OFFICE:

100 SIXTH AVENUE

CHICAGO NEW YORK, N.Y. SAN FRANCISCO

MONTREAL TORONTO

GENERAL PRINTING INK CORPORATION DIVISIONS:

American Printing Ink Co.
Eagle Printing Ink Co.
The Fuchs & Lang Mfg. Co.
Geo. H. Morrill Co.
Rotogravure Division
Rutherford Machinery Co.
Sun Chemical & Color Co.
Sigmund Ullman Company

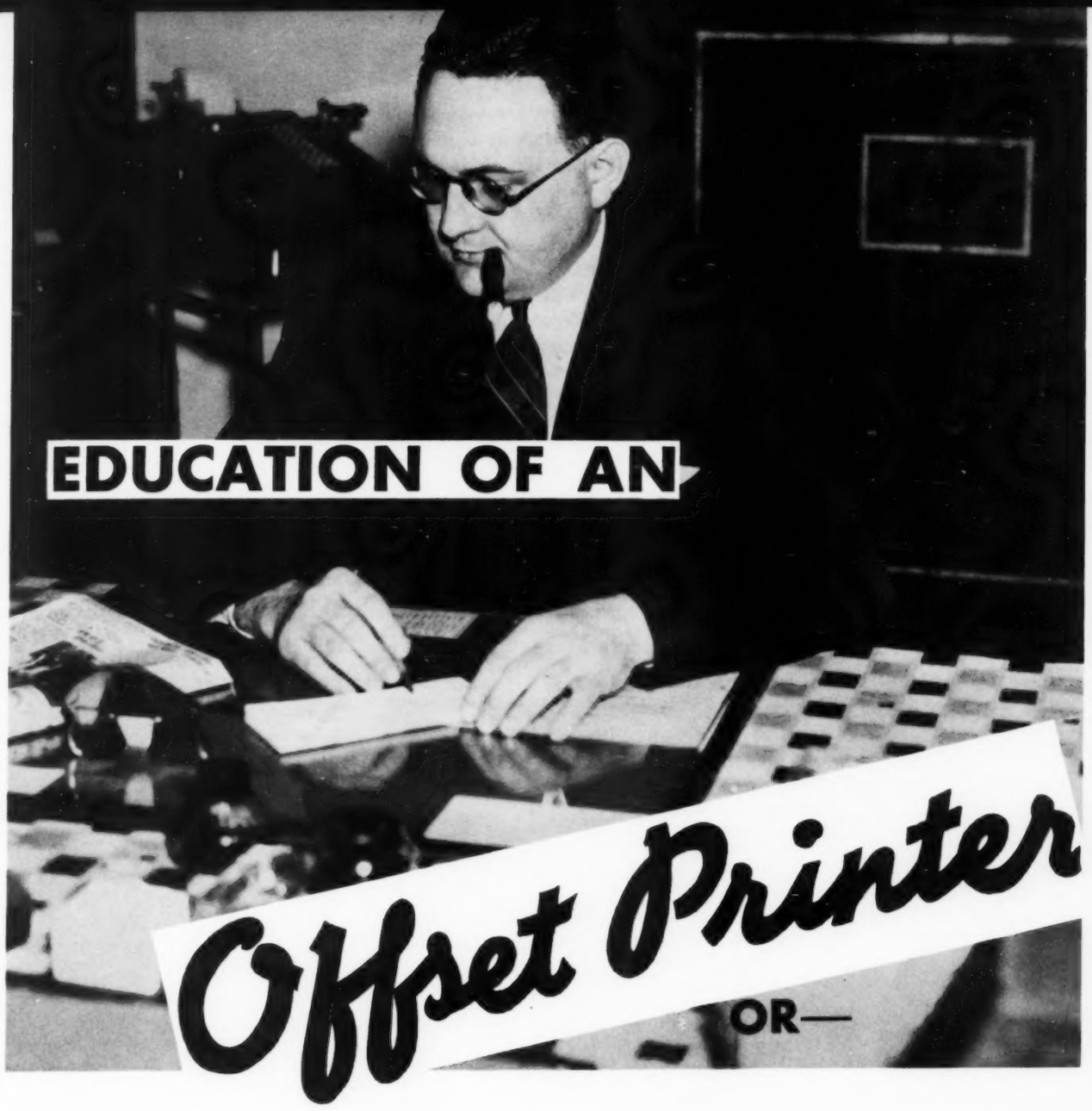
Tavern Candles

Produced by Gravure

in the plant of the

Eureka Specialty Printing Company

Scranton, Pa.



EDUCATION OF AN Offset Printer —OR—

The author in a characteristic pose. Pad and pencil in front of him, a calculating machine on his right, the safe on his left, a bottle of black ink and a bottle of red ink on the desk, and a cigar clamped determinedly between his teeth. Recognize him?

"Earn while you learn;" the story of a heroic and successful three-year struggle against bitter disappointment and unknown odds.

By B. T. Russell*

ONCE I was a happy man, but today I'm an offset printer. A couple of years ago you could have said that about me, and it would have been a truthful statement of my disappointment and disillusionment with the offset process. But let's begin, as everything must, at the beginning. Mind you, much as I think a story like mine needs telling, I have many misgivings about it ever being heeded. "You can always tell a printer—but you can't tell him much," is as true today as the first time it was spoken.

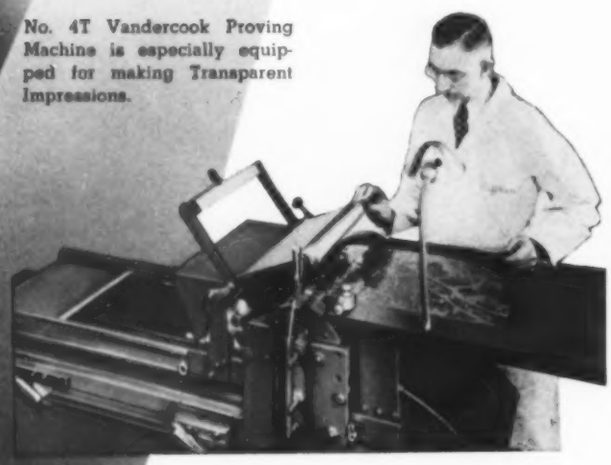
Our firm is located in a mid-western city of 100,000. It is owned and operated by a large daily newspaper. For more than a quarter of a century it has been in business at the old stand, doing a general line of commercial letterpress printing, including ruling and binding, a dozen or so of the better high school and college yearbooks, and a vast amount of general publication work.

*Name of company, and address furnished on request.

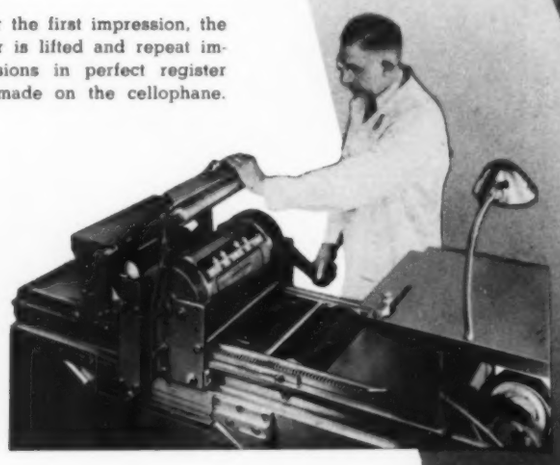
SEE *Transparent Impressions* MADE AT THE *N. A. P. L.* CONVENTION

Be sure to visit the booth of Vandercook & Sons, and see how transparent impressions are made for use in offset reproduction. Many NEW discoveries have simplified the process and extended its scope. Latest proving methods and new dusting equipment will be demonstrated.

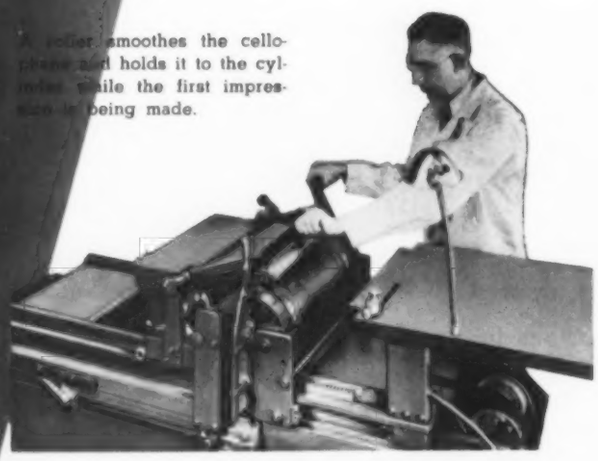
There will be announcements of vital importance to Photo-Lithographers at the Vandercook booth. If you cannot come, send your name for free booklet on the production of "Transparent Impressions" and the latest release on Vandercook developments for your field.



No. 4T Vandercook Proving Machine is especially equipped for making Transparent Impressions.



After the first impression, the roller is lifted and repeat impressions in perfect register are made on the cellophane.



A roller smoothes the cellophane and holds it to the cylinder while the first impression is being made.

The cellophane is removed. Perfect register is essential in making transparent impressions for reproduction.

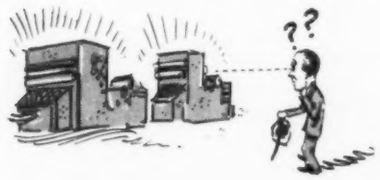
VANDERCOOK & SONS

Main Office and Factory
900 North Kilpatrick Avenue, Chicago, Illinois

Eastern Branch
216 East 45th Street, New York City

CANADA: SEARS LIMITED, TORONTO, MONTREAL, WINNIPEG, VANCOUVER

Then along about 1936 we started to think about offset. Should we add it to our letterpress department or not?



Everywhere you turned there was offset being offered by our competitors, and at a price we couldn't meet. If you read the trade papers in the graphic arts field, you received the very positive impression that offset as a process was going places. Some of the trade papers it is true, those going mostly to the letterpress field, tried to play it down, but you could read between the lines. The advertisements of the offset equipment and materials manufacturers said offset was growing, and even though you realized they would hardly say anything else, you felt yourself being influenced. Bedroom and backyard printers with their cut-throat prices were taking quite a toll in volume and profits. Something had to be done to meet the ever-growing competition. A way had to be found to produce printing faster and at a lower cost.

We turned to offset. The glowing accounts of advertisements and a few competitors (why we didn't smell a rat in their bubbling and optimistic accounts of the possibilities the process offered, I'll never know!) finally persuaded us. We envisioned a line of high speed offset presses turning out work like clockwork. We saw complicated office forms reproduced simply and easily by photo-mechanics. We saw work rushed into the plant, stuck up in front of the camera, a couple of plates being made faster than you could say "Jack Robinson" and then, without the need for long make-ready, the finished job turned out on the press in a few hours. The picture surely looked like a honey! No make-ready costs, small overhead for the department, low operating costs, and large profits. That was our vision for 1937 when late in 1936 we decided to enter the offset field. What a shock we had waiting for us!

In December 1936 we bought and installed a new Harris 21 x 28 LSN offset press, a Monotype-Huebner camera and complete platemaking equipment. A room, trim and neat, was set aside in the basement of our plant for the new department. We furnished it with a darkroom, including sinks, and an electric refrigerator, although no one said anything about the latter being a vital part of the equipment.

By the first of the year 1937 the installation was complete and ready for operation. We rubbed our hands in anticipation! The fact we knew nothing about offset production or costs didn't chill our enthusiasm in the least. The process was so simple the department would operate itself. Why everybody said that! The only problem was to feed the gaping maw of a hungry press.

Man, what a dream!

WELL, we hired a pressman and a camera man and opened up for business. Our first job was a nice, two-color booklet, with an abundance of line drawings and halftone reproductions. We had sold this job on the strength of our newly-acquired offset press. We wanted to show what we could do with it. It was intended to be our pride and joy, and an outstanding example of quality and service as dished out by us, the city's leading commercial printing firm, versatile, proficient, offering low prices and speedy service.

Our first headache developed before the press even had a chance to turn over. The men we employed were members of the Amalgamated Lithographers Union. For years our commercial printing and newspaper plant had operated under typographic union contracts, therefore, the typographic pressman's union claimed jurisdiction over our pressroom and refused to recognize the Amalgamated, or any union other than their own. The camera man and plate maker, we were told, must be affiliated with the photo-engravers' union. Well, what could we do? *You* know what we could do —and we did it! We shut down and waited for the pressman's union to supply their men. We managed to secure the services of the union's school instructor, and together with the loan of a plate maker from the local photo-engraver, the job was delivered. But brother, even today, when most of our headaches have been licked, I couldn't begin to guess—even if I wanted to—how much that job really cost us before it was off the press! Then, when after six or eight weeks of wrestling with the thing, our pet job was finally delivered, it was an outstanding example of what a job should not be. Most of the simple color work was off register, and I'm willing to lay a wager that the ink isn't dry yet and will still rub off.

There followed, after this costly experience, three or four months of hectic firing and hiring in an attempt to find competent craftsmen to operate the department. In the meantime, the equipment suffered badly, especially the press, because of inefficient and incompetent operation. There were more spoiled jobs, a wanton waste of materials, and work always finished long after scheduled delivery dates. Well, it took six or eight months before things were smoothed out to any extent. The department was, in the meantime, doing $1,000 monthly volume and business slowly but surely began to look up.

We began to get educated, too. It was something we should have attended to long ago. We investigated and acquired a fairly broad knowledge of competitive conditions in the offset field. We found out, for example, that attractive art work was a necessary factor in the black and white field. So we had to hire an artist, a little item we had never planned for when we first went into the business. We had thought on simple letterheads, for example, all that was necessary was to have a certain type face set and shoot

HAS *Your* SPRAY SOLUTION BEEN SCIENTIFICALLY TESTED?

SMICO WONDER SPRAY SOLUTION has been scientifically tested on guinea pigs by an outstanding doctor—and also by a foremost toxicologist—with definite proof that SMICO WONDER SPRAY SOLUTION is *non-injurious* to eyes, nose, mouth, throat, bronchi, lungs, heart, or any other part of the human body.

Pressroom Performance

SMICO WONDER SPRAY SOLUTION . . .
—works with any make of spray gun.
—It is effective with every type of printing.
—It is outstanding for GLOSS INKS!

Containers: 1 and 5 gallon cans--55-gallon drums.

➤ Send a Trial Order—TODAY!

Sleight-Metallic Ink Companies supply a complete line for the graphic arts—inks for job and advertising printing; for McKee and Claybourn color processes; for magazine and newspaper color and black work; for Offset Lithography, litho posters and all specialties.

SLEIGHT METALLIC INK COMPANIES, Inc.

Chicago: 717-719 W. Congress St. **Philadelphia: 538-540 N. Third St.**

New York: 75 West St. *Washington:* 926 H St. N. W. *Cleveland:* 620 Caxton Bldg. *Milwaukee:* 1929 W. Clybourn St. *Fort Worth:* 243 W. 13th St. *Kansas City, Mo.:* 722 Wyandotte *Los Angeles:* 425 E. Pico St.

from that. That was all right, too, with some customers. But our competitors had spoiled most of the good prospects by offering them fancy, hand-drawn jobs, shaded lettering, or retouched composition. To keep up with the parade, we had to have the same kind of work on tap for our customers. The up-shot was that we made the decision to lay off of bank check, deposit slip and other highly specialized work entirely for awhile until we were better organized.

We learned, too, that despite what we had been led to believe, it does take make-ready time to get an offset press started; and that it takes a great deal more experience and work and time to make a good offset plate than we thought. Also we learned that film, chemicals and other offset supplies constituted a cost item far heavier than we had been prepared for.

Then, too, while letterpress and offset are both forms of printing, we learned that there is a whale of a difference! Just because you're a printer, don't get the idea you can buy the necessary equipment and materials and overnight become an offset printer, as well! The techniques are as different as learning to operate a typewriter and learning to draw pictures. We weren't chemists, but we soon learned that it was necessary for us to know chemistry if we expected to control all the steps in the offset operation. I've heard printers called plumbers, but never before did I believe it was so until I watched our clumsy efforts at making plates. Man, we knew from nothin'! Our chemicals played all sorts of tricks on us. We had no end of trouble and expense because the image walked off our plates. We

worried and fretted and wasted a lot of materials because we couldn't get our bichromate solutions right. We found out that the egg scales we were using were bad. It was trouble, trouble, and more trouble!

Selling gave us something of a major headache, too. The big problem we had to solve was how to develop a profitable business within our offset plant's scope of accomplishment. In other words, we had to decide on the kind of work to go after and make a profit. Just because we had an offset department we couldn't go around telling everybody about it, because there simply was some work we couldn't do by offset and make money. So we had to decide which jobs we could do and which ones we couldn't. That was another disillusioning experience, and in some instances we were forced to draw our horns way in.

After we had adopted a policy regarding this phase of selling and found we were on the right track, we slanted direct mail and newspaper advertising accordingly. We worked closely with the advertising agencies, and soon we were getting the right kind of business. Since then it has grown commensurate with our ability to handle it.

In this connection, since a large part of our work varies from runs of as little as 500 to as much as 10,000, we found another problem that needed solving. The longer runs were no headache, but the short ones furnished a cost production problem. Experience showed us that making plates for the shorter runs and printing them on the Harris was both impractical and expensive. So we tried ganging forms on the plate. This helped to reduce costs, but it still didn't provide the final solution. Even with ganging it was not found to be profitable on short runs of a general commercial nature, due to the various kinds of paper and the quick delivery dates wanted by most of our customers.

What to do? Well, we did the thing we thought best, though I'm quite aware there are many who will turn up their noses when I mention it. We bought a Multilith, a 10 x 14, and after a time, the Multilith solved the problem of short runs admirably. Probably a word should be said right here about the Multilith, especially to the nose turner-uppers. The Multilith is all right. If it is mentioned with a whisper in some quarters, it is because somebody, deliberately or not, has created an entirely erroneous impression regarding its purpose and use. Offset printing is one kind of printing; Multilith is another. To pass off the product of the latter as an example of offset printing betrays an ignorance that should be corrected.

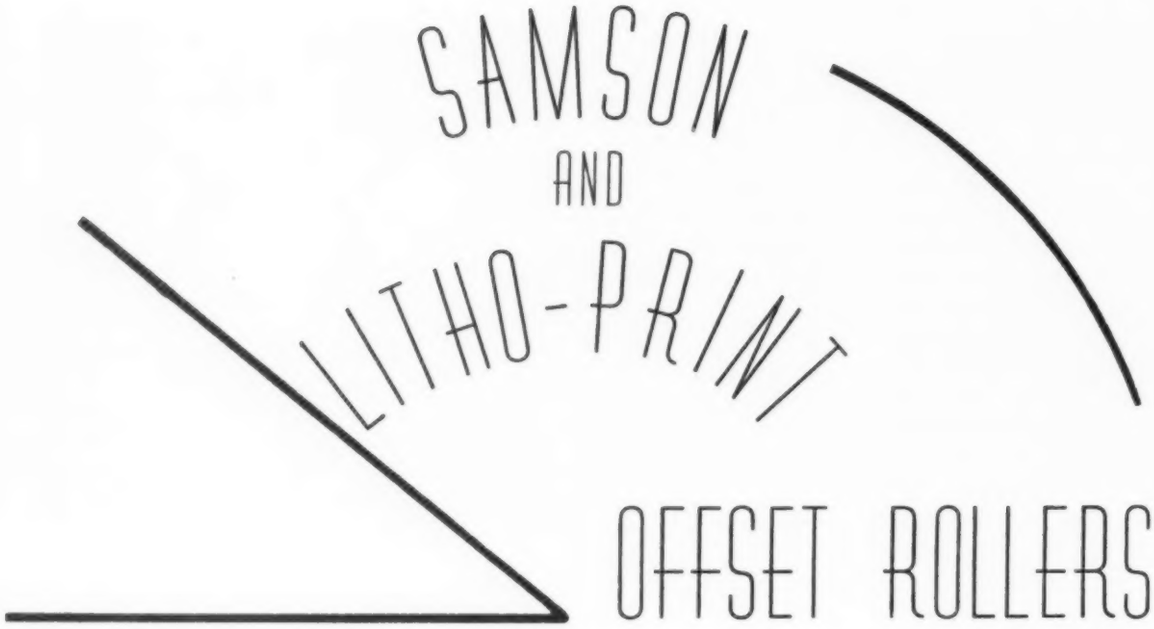
BUT to get back to our original story, we finished up the year 1937 several thousand dollars in the red. We ap-

proached 1938 with much trepidation, but determined to see this thing through. If others were making a profit so could we. We had gone into this business half-cocked, uninformed, woefully unlearned in even the roughest fundamentals of the business, and we should have known better. We should have had more sense. We should have made adequate preparation. We should have made wider inquiries. There were hundreds of things we should have done. But, we reasoned, we were probably not much different than a lot of other printers. Many had undoubtedly, also, gone into the offset business with as little real understanding of the problems in store for them. Many had gone down with the weight of their problems around their necks, but many had survived. If they could, so could we.

Heartened by this fight-to-the finish attitude, we found 1938 to be smoother sailing. Our monthly volume climbed to somewhere around $1800. We worked out production schedules that were closely followed. The quality of our work improved. We studied each new job more carefully before attempting to print it by offset. We came to the conclusion—which is only sensible and reasonable—that there are still a great many jobs for which offset is unsuited.

Meantime, we began to experiment with a number of cost systems for the department. Significantly, we found out that few of the smaller lithographers in our section of the country ever

(*Turn to page* 85)



BINGHAM'S SAMSON (VULCANIZED OIL) and LITHO-PRINT OFFSET ROLLERS combine highest quality with peak performance at prices no printer can afford to miss out on. BINGHAM PRICES are EFFICIENCY PRICES because mass production, modern methods and quantity distribution enable BINGHAM to provide MORE FOR LESS. And BINGHAM'S SIXTEEN strategically located PLANTS mean economy, speed and convenience to our customers.

CHICAGO

ATLANTA	KALAMAZOO
CLEVELAND	KANSAS CITY
DALLAS	MINNEAPOLIS
DES MOINES	NASHVILLE
DETROIT	OKLAHOMA CITY
HOUSTON	PITTSBURGH
INDIANAPOLIS	ST. LOUIS

SPRINGFIELD, OHIO

Also distributed by

California Ink Co. . . . San Francisco
Dry Climate Ink & Roller Co. . Denver
McKinley Litho Supply Co. . Cincinnati
Harrigan Roller Co. . . . . Baltimore
Dorsey Printers Supply Co. . Memphis

SAM'L BINGHAM'S SON MFG. CO.

Merchandising

ADVERTISING'S PLUS

By Douglas Wakefield Coutlée*

Director of Advertising, Merck & Co.

EVERY now and then my wife experiences the urge to go "window shopping," and, invariably, some particular window display arouses her interest. Then desire and action follow in logical sequence and a sale is consummated.

"I really didn't intend to buy anything today," she will explain, "but —". But what? Something attracted her *attention,* and she sought *information.* And when the information proved of *interest* she felt the *desire* for possession, which culminated in *action* and, despite her intentions to the contrary, she *bought.*

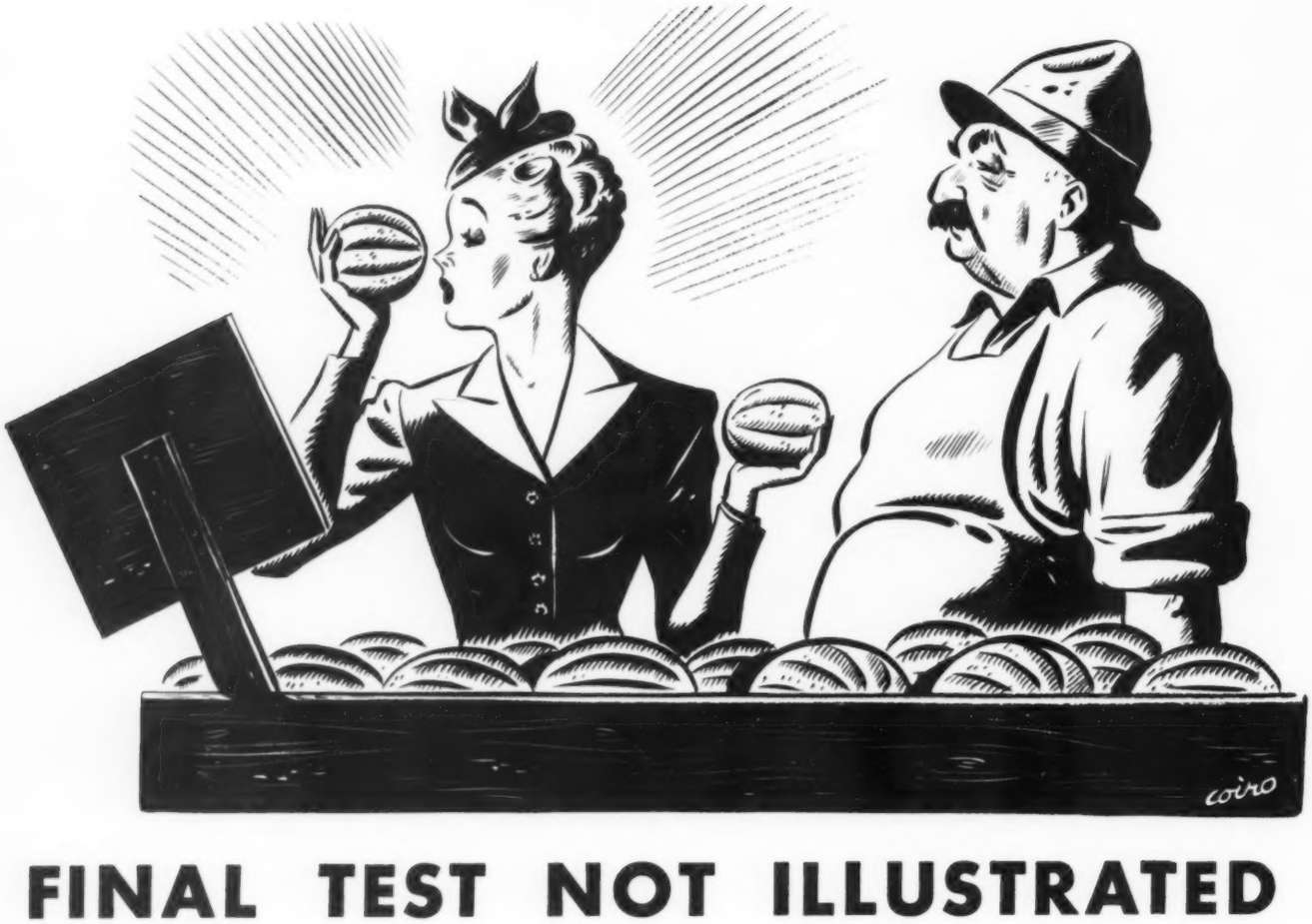
Truly it is difficult to conceive of any single force which exerts a greater influence on the way we live today than advertising, whether it is in the form of a printed message in a magazine or newspaper; a window display; a poster; a letter, circular or booklet; or a radio announcement.

Advertising may be presented in many and varied forms; but its fundamental purpose is to supply information about things which are bought and sold. A well-conceived advertisement announces the facts about a product and tells where it may be obtained, when it is available, how it serves its purpose and why it should be purchased. It is an important medium of business intercourse through which buyer and seller are brought together for a mutual exchange of value and satisfaction.

Advertising renders an economic service to the manufacturer, dealer and consumer. It helps the manufacturer to widen his zone of trade, increase his sales, achieve volume production and sell his goods at a profit. It helps the dealer to attain a steady and rapid turnover, reduces overhead and gives him a satisfactory profit on his investment. It acquaints the consumer with the relative merits of competitive products, tells him where to buy, what to ask for and how much he will have to spend. Knowing prices he buys economically, and knowing qualities he buys the best.

Good advertising creates favorable acceptance for new products and maintains faith in those already known. It molds public opinion and influences buying habits. It builds confidence, creates goodwill, establishes prestige, and acquires reputation for products

*Abstracts of an address delivered recently before the New Jersey Drug Travellers' Association.



FINAL TEST NOT ILLUSTRATED

The lady won't really know if her melon is good until it is eaten, no matter how good it looks in the fruit stand. She shook it, pressed it, finally smelled it. We hope she is not disappointed.

We know you won't be disappointed in PITMAN EGG ALBUMIN because we give it the final test *before* it goes into PITMAN cans. Of course we give it the once over to be sure it is up to the PITMAN STANDARD for color, odor, solubility, clarity, keeping quality and that it mixes well with dichromates. Then we give it the acid test for quality. We make up a plate and run it on our 17 x 22 press to test for *lithographic quality*. Every lot of PITMAN ALBUMIN must pass the press test. Our assurance to you that PITMAN ALBUMIN is the best available.

HAROLD M. PITMAN COMPANY

LITHOGRAPHIC EQUIPMENT AND SUPPLY DIVISION

JERSEY CITY, NEW JERSEY—150 Bay Street

51st Ave. and 33rd St.—CHICAGO, ILLINOIS

Pacific Coast Representative . . . G. GENNERT, 1153 Wall St., Los Angeles, Cal.
Canadian Representative . . . LATIMER, Ltd., 90 Niagara St., Toronto, Canada

of merit. It serves as a dependable buying guide for millions of people in all walks of life, and in so doing it contributes to the happiness, welfare, education and prosperity of the nation.

Now in this general picture of the functions of advertising there is a supplementary selling force which in its way is fully as important as that which we term "advertising." It is known as "merchandising." And despite the frequent reference to these two major selling forces, "advertising" and "merchandising", there are still many who do not understand clearly the difference between the two, or the functions of each in promoting consumer sales. Let us see how merchandising differs from advertising, and how one may be employed to supplement the other in promoting sales.

When, for example, a manufacturer of household drug products wishes to sell his products to consumers in various sections of the country, he must inform them about the merits of his products and urge them to buy those products at local drug stores where they have been made available. That calls for *advertising*.

The retail druggist, having stocked the advertised products, and wishing to capitalize on the demand created by the manufacturer's advertising, must display the products or otherwise bring them to the attention of his customers so that they may see and buy them. That calls for *merchandising*.

To present the matter in another way and point out the particular job which each of these selling forces is intended to perform, it should be helpful to bear in mind that—

(1) The objective of advertising is *to bring customers to products at the point-of-sale with the desire to buy.*

(2) The objective of merchandising is *to bring products to customers at the point-of-sale and cause them to buy.*

It is the responsibility of the manufacturer's advertising to inform the public about the merits and advantages of the product and bring customers to the product at the point-of-sale with the desire to buy. And it is the responsibility of the retail druggist, and the manufacturer, to bring the product to customers at the point-of-sale and cause them to buy. The retail dealer can accomplish this latter important sales objective in two ways by *suggesting* the advertised product to a customer who fails to specify a particular brand; or by *displaying* the advertised product in his window or on his counter as a reminder and direct tie-up with the manufacturer's advertising.

However, in view of the large number of competitive products which comprise the stock of the modern drug store, no manufacturer can properly expect the "man-behind-the-counter" to recommend his particular brand to every potential customer. On the other hand, the experienced manufacturer realizes that there usually is a lapse of time between the contact of his advertising on the public and the actual visit of potential customers to local stores. He also knows that people do not hasten out to buy any product unless it is required for immediate use, and that it is also human to procrastinate and forget. Therefore, he must not only make people *desire* to buy his products, but he must also *remind* them at the point-of-sale and *cause* them to buy. That is why so many manufacturers invest substantial sums of money for display material to help dealers merchandise their products at the point-of-sale.

HERE, then, is the merchandising opportunity of the retail dealer —to utilize the attractive window and counter displays, price cards, signs and other material provided by the manufacturer.

Every successful retail druggist knows by experience the value of attractive merchandising displays. He knows the importance of getting reputable products up in plain view where people can see them—and buy them. He knows that even a regularly advertised product will sell much better if it is displayed than it will if kept out of sight. There is no question regarding the advantages to be gained by the retail druggist who makes proper use of well-conceived merchandising material for displaying essential products intended for over-the-counter sale.

However, no manufacturer who has studied thoroughly the problems of advertising and merchandising will depend alone on the merchandising efforts of the retailer, no matter how well-intentioned. Now that he has placed his products on the shelves of retail stores obviously the job is to get them off those shelves and into the consumers' hands. Confidence in his products previously created over a period of time will do that to a degree. So will the recommendation of one user to another. So will the cooperation of friendly and enterprising dealers. So will the insistence of consumers who have been interested and convinced by his advertising. But in order to make his selling job complete he will not overlook the final link in the program—merchandising displays, which have been produced for use at the point-of-sale—the retail store. Unless he uses those display pieces to get his products in the windows and on the counters—up where potential customers can see them—he will not get the maximum results from his advertising and selling efforts.

Let me try to demonstrate the important part which merchandising displays should play in a sales campaign. Put yourselves, theoretically, in the position of an average consumer. You read an advertisement of a new product in a magazine. It appeals to you, but you are sitting in an easy chair at home in the evening after an active day and you are enjoying a few hours of well-deserved rest and relaxation. You don't go out and buy the product that is advertised.

The next day you read an advertisement of the same product in your newspaper, but you are on the train, or at the breakfast table just prior to rushing for a train, and you don't go out and buy the product that is advertised.

That afternoon you see an advertisement of the same product on a poster, but you are driving your car at 40 miles an hour and you don't stop to buy the product that is advertised.

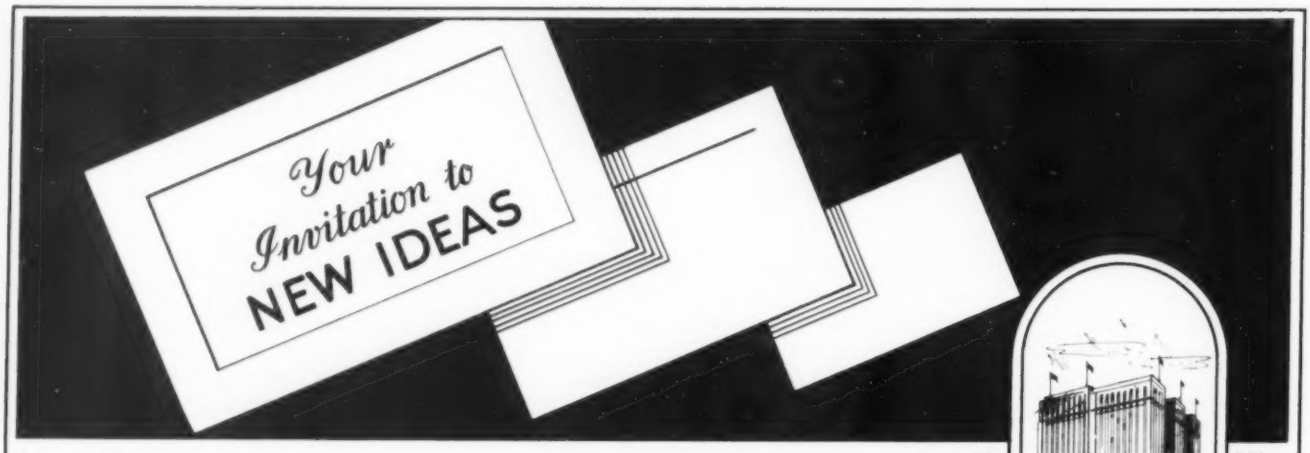
A few days later you come home for dinner, tired and hungry, and you open your mail. Out pops an attractive booklet or folder describing the product which you previously read about in the magazine and newspaper,

(*Turn to page* 83)

MANUFACTURED AND SOLD BY **ALLAN B. CROKE COMPANY** BOSTON, MASS.

National Distributors: THE FUCHS & LANG MFG. CO. DIV., GENERAL PRINTING INK CORP., NEW YORK, N. Y.
Boston, Chicago, Cincinnati, Cleveland, Philadelphia, St. Louis, San Francisco, Ft. Worth, Los Angeles

Canadian Distributor: GENERAL PRINTING INK CORP. OF CANADA LTD., TORONTO, CANADA



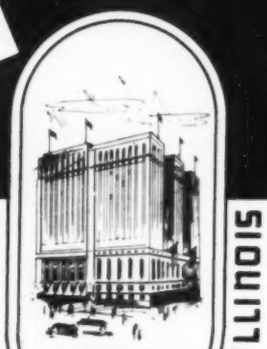
Your participation in the Eighth Annual Convention of the National Association of Photo-Lithographers is sure to give you a better understanding of the problems of the lithographic industry and a batch of new ideas to increase your business during the coming year.

We'd like to send our good wishes to all attending the convention along with a reminder that our technical staff is in constant touch with latest developments and is anxious to help you with your pressroom problems.

A Complete Line of Printing and Litho Inks - Varnishes - Dry Colors - Dryers

H. D. ROOSEN COMPANY

MAIN PLANT AND OFFICE: FOOT 20th and 21st STREETS, BROOKLYN, N. Y.
BRANCHES: Chicago - Boston - Baltimore - Mexico City, D. F. - Havana, Cuba



TEN thousand pieces of mail is a drop in the bucket to one of Uncle Sam's post offices. But it's a sizeable mailing for any industrial concern.

On my call list is a large insurance company. I happened in recently when a large mailing was going out.

"May I ask what this mail contains?" I inquired of the girl at the automatic sealer.

"Premium notices," she replied.

"Premium notices, and nothing more?" I asked.

"That's right."

Imagine ten thousand contacts being made and no attempt to sell anything! But maybe the insurance company has nothing more to sell to its present clients.

Oh no?

What about a new type of policy to fit a possible change of income? How about a policy for the kiddies? How about an entirely new type of policy to meet changed conditions? How about the loan angle of insurance in emergencies?

Lithographic Salesmen, perhaps on your list there are concerns sending out thousands of bills every month and overlooking the fact that these are potential sales contacts. Lithographic executives, what about your *own* business? What is good advertising for an insurance concern might be good advertising for a lithographic company.

So let's apply the idea to our own business. Say we have six different classifications of work: ruled forms, circulars, broadsides, stationery, booklets, reprints.

Next we will write a suitable, snappy message on each of these subjects . . . just enough to be well displayed on, say, 5½ x 8½.

Here are two ways of getting these little missives printed. One way . . . write and design a couple and print them eight-up on a 17 x 22 sheet . . . or . . . watch out for open spots on large sheets and print them, perhaps, one at a time on that portion of the sheet that would otherwise be wasted.

The last method is more economical but least satisfactory, because chances are you won't get the enclosures printed . . . you know how it is. You might better make up your mind to do the job right and print the whole series in the regular way.

I said *regular* way. Don't keep sidetracking the job for the all-important customer . . . as important as he is. If you don't put your own work through on schedule you'll find yourself printing Christmas enclosures around the Fourth of July . . . not six months ahead but half a year behind. If you want to produce these on schedule and with the greatest of economy you should probably print the series on one sheet in one color. The main idea is to get 'em printed and in circulation.

Now we have them printed, get a small shelf put up just over the shipping counter. Whenever you have a shipment of statements going out slip in a couple of inserts . . . one on broadsides and one on booklets. But don't enclose a slip suggesting the use of letters into a package of letters. Make your customer conscious of the other phases of your service.

The cost of these enclosures is really trifling and best of all they get a free ride to their destination. There is no end to the vehicles you can use. Enclose them with letters, invoices, statements, type proofs, vandyke proofs, copy, layouts, etc.

A well-designed enclosure might give some of your customers ideas of using them in their own business, creating two jobs where one grew before.

On the next two pages is suggested copy for four enclosures.

(*Turn to pages* 63 *and* 65)

Color or Black & White

HAMMER
DRY PLATES and FILM

are the choice of discriminating craftsmen for negatives and positives.

•

HAMMER PANCHROMATIC PLATES A.H.
SOFT GRADATION
COMMERCIAL
PROCESS
CONTRAST

•

HAMMER SUPER PROCESS PLATES A.H.

•

HAMMER OFFSET PLATES A.H.
SPECIAL ORTHO
ORTHO
REGULAR

•

HAMMER OFFSET FILM A.H.

•

SPECIAL ORTHO
HALFTONE
REGULAR

•

SEND for descriptive booklet Dept. N1

HAMMER DRY PLATE & FILM CO.
OHIO AND MIAMI ST. LOUIS, MO.

NOT A NEW DEAL-

BUT THE SAME OLD DEAL

is what you can expect when using

BALDWIN PRESS WASHERS

•

BALDWIN INK FOUNTAIN AGITATORS

•

BALDWIN VIBRATING ROLLERS

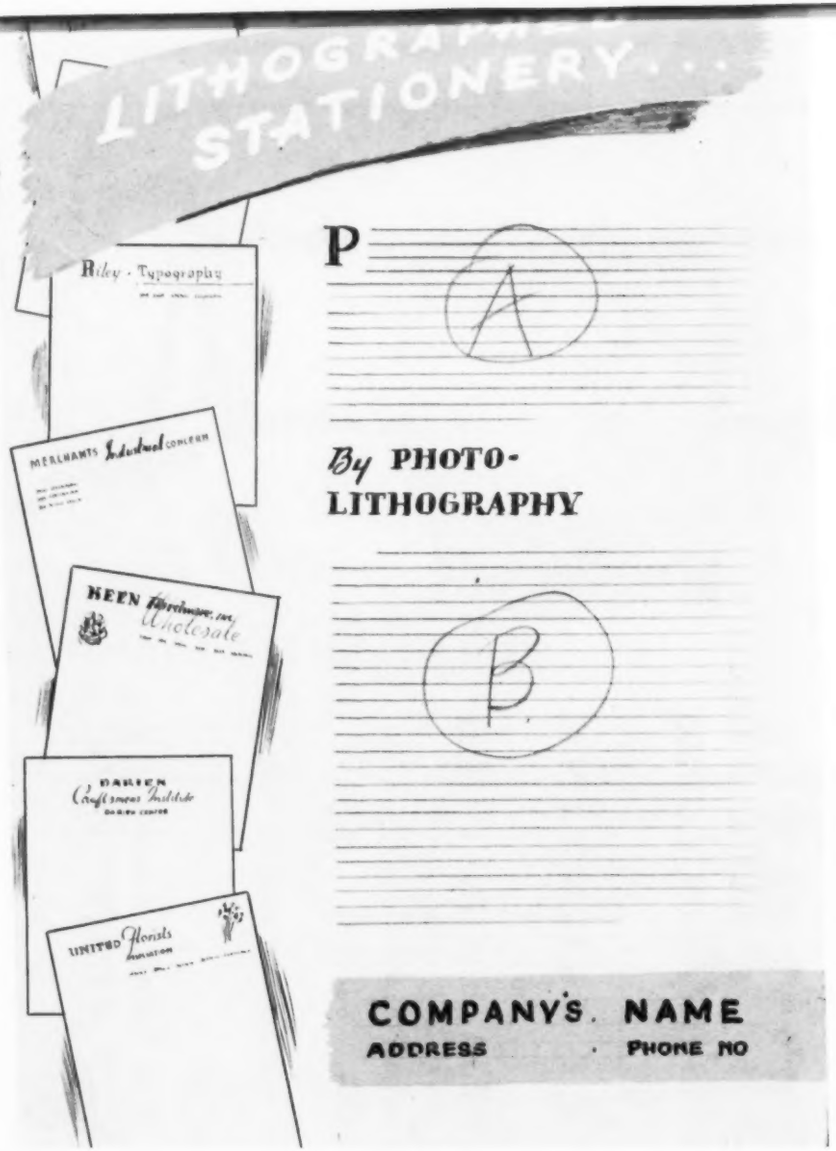
Established twenty-two years ago, the name "BALDWIN" has earned a reputation among Lithographers for square and satisfactory Dealing.

Absolutely no obligation for details.

WILLIAM GEGENHEIMER

Offset Press Engineers

78-80 Roebling St. Brooklyn, N. Y.



(A)

Perhaps you've always wanted lithographed stationery. It carries a certain class and restraint not possible by other processes.

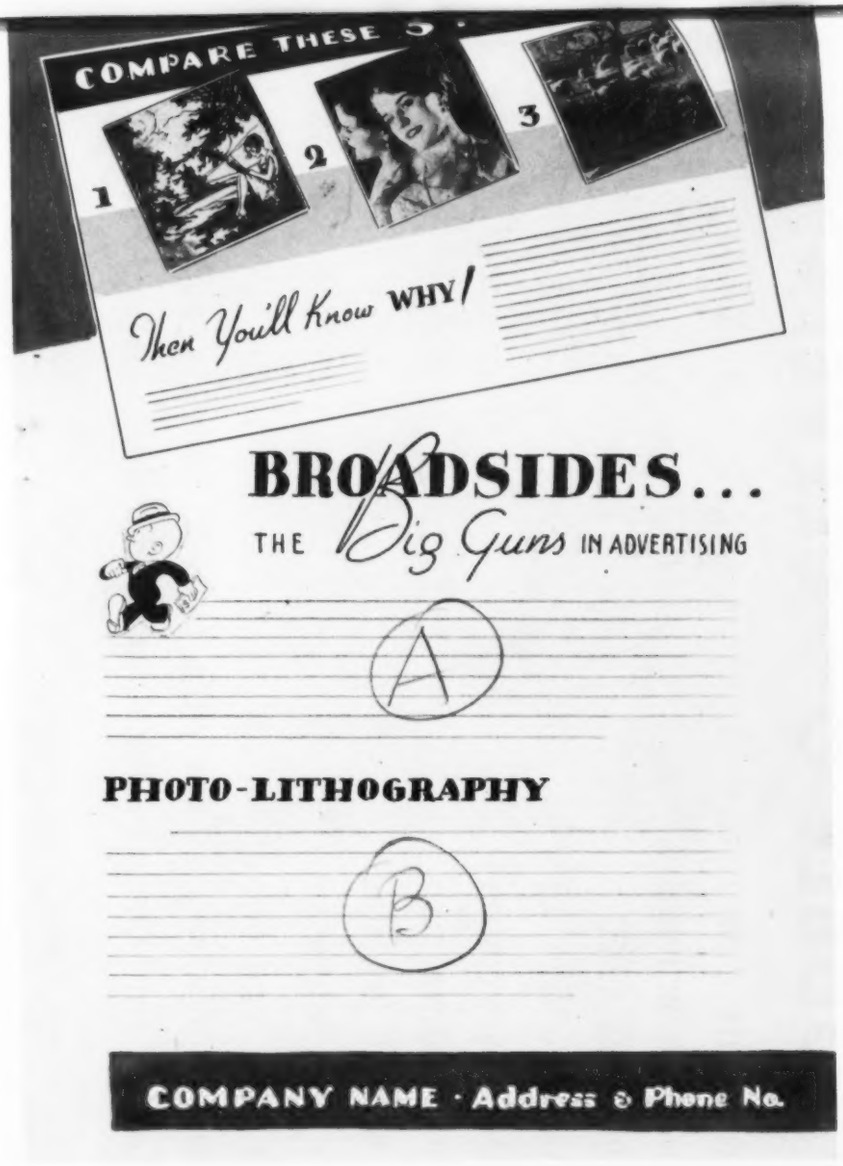
Since the advent of the camera in lithography many ideas are possible that previously have been too expensive by

(B)

We take a great pride in producing fine stationery that reflects the quality of your product or business.

The offset process by Blank & Co. gives your business stationery that class and quality which you enjoy passing on to your customers and prospects, and which they, in turn will appreciate receiving.

Wouldn't you like to see our portfolio of new ideas in business stationery? The process is comparatively inexpensive.



(A)

If you've a story to tell and you want to tell the whole story impressively . . . . use the smashing, dramatic broadside. And of course, to do it right it must be well illustrated . . . . economically by

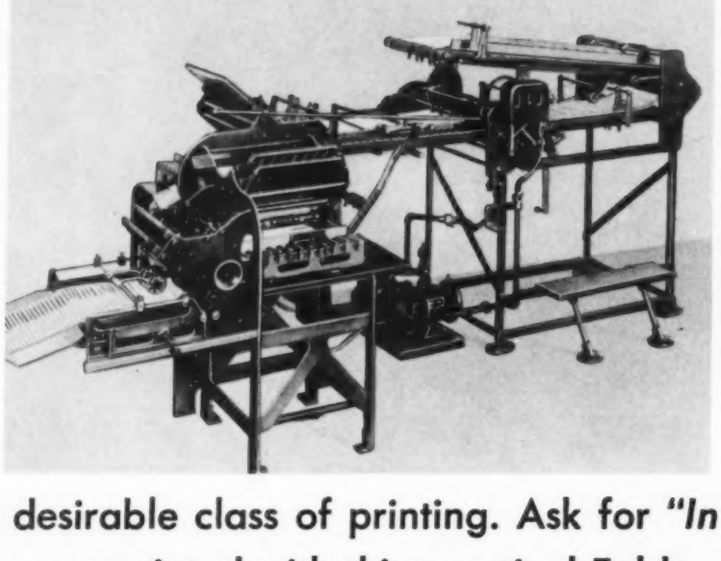
(B)

Broadsides planned and produced by (Name of Co.) lithography carry a punch and selling appeal which many advertising pieces lack. The most effective, result getting broadsides are built on quality in every step . . . . preparation . . . . photography . . . . plates and presswork. And you'll find (Name of Co.) lithography very kind to your budget.

ONE "DOUBLE O" CLEVELAND

will make practically every type of fold you will ever need in sheet sizes up to 22 x 28".

As approximately 90% of all Direct Mail Literature comes within the maximum sheet size and Folding Range of the "DOUBLE O," this one Folder in your plant will give you top service and extra profits on this desirable class of printing. Ask for *"In Step with the Times,"* and become acquainted with this practical Folder.



DEXTER FOLDER COMPANY • Pearl River, New York

Macbeth

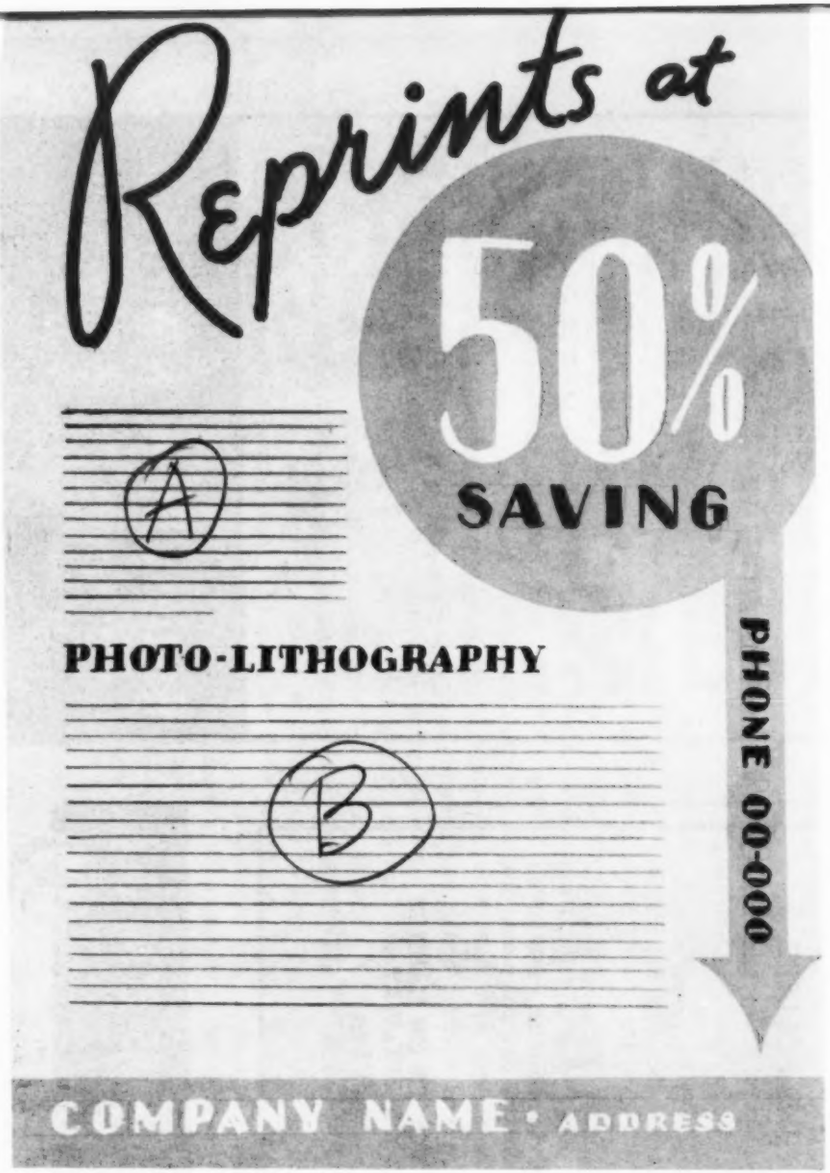
World's Standard Photo Lamps

CORRECT LIGHTING
for the
MODERN LITHOGRAPHER

- Contrasty negatives that cut down retouching costs.
- Fast prints without halation or fuzzy edges.

Macbeth Arc Lamp Company
875 N. 28th STREET, PHILADELPHIA, PA.

Type B16 Printing Lamp



(A)

1000 reprints of a booklet wanted! The original type has been destroyed! Budget won't stand the cost of resetting! You've probably had this one come up many times.

(B)

comes to the rescue. All we need is one good copy. No type to set. We simply deliver you as many copies as you want . . . . identical with the previous printing . . . . at a cost considerably below that of any other process, comparable in quality.

(A)

No printed or lithographed job is perfect in the strict sense because the human hands that made it are not perfect.

But because you have placed a trust in our hands you have a right to expect and receive a lithographed job as nearly perfect as is possible to produce.

If this work is unsatisfactory in any way we would consider it a favor if you would call us.

Every Type of *Roller* for *Lithographic Work*

•

There are today a diversity of rollers for use on offset presses. To meet these demands we manufacture—

- **STAR RUBBER ROLLERS**
- **GRAIN AND SMOOTH LEATHER ROLLERS**
- **MOLLETON, VELVETEEN AND MOLESKIN ROLLERS**

In addition to these lithograph Rollers, we also manufacture—

- **CRESCENT OIL ROLLERS**
- **STARTEX**

which are today giving universal satisfaction, due to their endurance and ink distributing qualities.

We do not recommend any type of roller, either for ink or water, that will have the slightest tendency to scratch the plate for we know how expensive and delicate plates are.

REMEMBER . . .

"ONE GOOD ROLLER ON HAND IS WORTH TWO ON THE WAY . . "

and order from any one of the addresses below.

BINGHAM BROTHERS COMPANY

FOUNDED 1843

Every Kind of Roller and Adhesive

NEW YORK · PHILADELPHIA · BALTIMORE · ROCHESTER

INKS

FOR SHARP IMPRESSIONS

Made by GAETJENS, BERGER & WIRTH, Inc.

Litho-Offset and Printing Inks

Standard offset and printing inks . . . process, gloss and special inks . . . yes, a complete galaxy of pre-tested inks that will meet your requirements.

P. S.—A reminder that on that next press run where a *real* intense black is required, try ECLIPSE SUPERTEX HARD DRYING OFFSET BLACK.

Metal Decorating Inks

A complete line of standard and special inks available to meet every need of the metal decorator . . . inks that bake in the oven fast and true . . . inks that dispel fear of brittleness . . . inks that will truly show your customers product at its best.

Perhaps there is a special problem in your own plant where our experience may be of practical value?

Also Manufacturers of Varnishes and Dryers

Gaetjens, Berger & Wirth, Inc.

35 York St., Gair Bldg., Brooklyn, N. Y.

538 South Clark St., Chicago, Ill.

Offset Press Operation

Another in the series on pressroom problems by the well-known writer, lecturer, authority and trouble shooter. In this article a method for obtaining true rolling contact is fully described.

BY C. W. LATHAM

BY TRUE rolling contact we mean that at point of contact between plate and blanket, and between blanket and paper, a synchronous speed exists so that no slippage is present.

This condition may be obtained by the manipulation of the packing under the plate and blanket, and, on some presses, under a shell on the impression cylinder. By varying the thickness of this packing, the diameter of the cylinder is changed and as the surface speed changes in relation to the cylinder diameter, it would seem to be an easy matter to obtain a relationship between the cylinders that would result in synchronous surface speeds.

However, it is not as easy as it seems, because there is the element of squeeze pressure to be considered, without which no printing can be done. There is also the factor of a relatively soft rubber blanket to be considered. This rubber blanket is not so easily compressible as it is generally thought to be, because rubber resists compression much in the nature of water in that when it is depressed at one point, the displaced material will escape to a place of less resistance, exerting a tremendous force if necessary in escaping. It is not compressible in the way air or gas is.

For this reason there is what we term blanket creep at the point of contact between two cylinders, and this creep causes acceleration of the surface at this point. Therefore, if the plate and blanket cylinders are both packed to the same diameters and are squeezed together with a four point printing pressure, we have a faster travelling blanket surface than a plate surface, and have developed a rubbing or massaging action at the point of contact between the two.

Some of the damage done by this rubbing has been explained in a previous article, such as the blinding and wearing away of the plate image, the smearing and thickening of the half tones, the breaking down of the water receptive coating in the open areas of the plate, with resultant scumming and streaking; and also, in extreme cases, the wearing away of the grain formation, necessitating more acid and a greater amount of dampening solution free of the grain. This excess dampening solution will find its way into the ink, ruining its water resisting qualities, dulling the print and upsetting its drying qualities.

This rubbing action also has an effect upon paper stretch, fanning, and misregister in multicolor work, and while a certain amount of this rubbing can be made use of to get accurate fit in the later colors, it is obviously bad practice to have even a small amount present during the running of the first color because there will be less of it left (within safe limits) to use for succeeding color fit. It should also be obvious that the more of this rub that is present during the first color printing, the more will be required to fit the succeeding colors.

The fact that to overcome this rub entirely, the plate and paper cylinders must be larger than the blanket cylinder in order to match the hard surfaces in speed with the depressed, soft surface of the creeping blanket is not hard to understand, but how much larger the plate and impression cylinders should be is more difficult and requires a little experimental work, because it varies with the size of the cylinder and the squeeze pressure. Once it has been determined for a certain size press, it will work on all presses of this size providing the same squeeze pressure is always used.

One way to get an idea of the proper relative sizes the cylinder bodies should be packed to, is to allow the blanket cylinder to drive the plate cylinder, through the traction between blanket and plate instead of through the gears or bearers, and then watch to see if the bearers creep.

If the blanket is packed too high when this test is made, the plate bearer will travel farther than the blanket bearer, and the blanket will have to be underpacked until both bearers coincide throughout the revolution. The plate of course will have to be overpacked enough to contact the blanket with a four point squeeze.

A method of determining the proper ratio of sizes between the blanket cylinder and the other two is the one of starting with any given ratio and working in the right direction until the proper one is reached. To do this it is necessary to reduce the bearer squeeze to zero so that if one cylinder tends to travel faster than the other, it may do so. The pressure adjustment between blanket and plate cylinder may be slacked off until the bearers clear with the pressure trip on, and then after spotting one set of bearers with a thin film of ink, tighten up on the adjustment slowly until the first sign of transfer of the ink spots occur on the other set of bearers. It will also be necessary to loosen the plate cylinder gear so that all the driving of the plate cylinder will be done by the traction between the blanket and plate. However, the last stud holding the gear should not be

(*Turn to page* 83)

The New ATF Gun *costs less* than ever before **. . . Now is the time to buy!**

Eliminate Rough Sheets with the New ATF Diafram Gun

Portable Compressor Model. Available in press bracket and pedestal models also.

Even after four or five process impressions the sheet remains smooth to the touch . . . with no offsetting! Simple fingertip adjustments on the new ATF Diafram Gun give you complete control of amount, duration, and size of spray in *any* direction . . . aim at any part of sheet or get full-sheet coverage. Light and compact, it is easily moved from press to press . . . for both offset and letterpress. New twin-head guns for extra-large sheet coverage. Ask your ATF Salesman or Branch about new low prices.

AMERICAN TYPE FOUNDERS

200 Elmora Avenue, Elizabeth, New Jersey • *Branches and Agents in 23 Principal Cities*

Types used: Spartan Medium and Italic, Franklin Gothic Italic

Makers of: ATF Type, World-Famous Kelly, Little Giant Presses and ATF-Webendorfer offset presses.

SYMBOL OF SERVICE

THE MARK OF MERIT IN YOUR FINISHED JOB

When the first sheet comes off the press, the critical eye of the shop foreman goes to work. It is literally greeted with a bombardment of criticisms and questions . . . is reproduction sharp? . . . color balance correct? . . . register true? . . . job time and quality, were they lost on remaking of plates due to inferior negatives?

ONLY WITH PRODUCTS AND EQUIPMENT OF QUALITY —the type of service for which N-W stands—can any offset job run the gamut of the shop foreman's criticisms and come out top high!

Keep YOUR jobs running through with economical efficiency and grade A quality by joining the ever-growing lists of Norman-Willets customers.

A DEPENDABLE SOURCE FOR GRAPHIC ARTS SUPPLIES

Dry Plates - Graphic Films - Chemicals - Process Cameras - Lenses - Sundries Lighting Equipment

U. S. Distributors For
Panchromatic and Process ILFORD Dry Plates, Film and Paper —All Plate making and Photographic Equipment of All Manufacturers.

Photo **NORMAN-WILLETS CO.** Supplies

316 W. WASHINGTON ST. CHICAGO - RAN 8300

Technical News and Literature

This is a regular department conducted by Mr. Martin, of the Harold M. Pitman Company, in which technical books, articles, papers and similar literature of interest to the lithographic industry are reviewed and discussed. It is intended as a supplement to the Lithographic Abstracts prepared by the Research Department of the Lithographic Technical Foundation, Inc., in which the author will comment upon and elaborate further those items which, in his opinion, warrant further analysis. This month he reviews and comments on two recently issued litho plate patents.

BY KENNETH W. MARTIN

Chromium Layer

U. S. Patent No. 2,203,849 *issued to Arthur Ronald Trist of Chipstead, England, covering the use of a layer of chromium with an unpolished, matte surface.* This layer may be plated on any suitable material such as metal, paper, cellulose derivative, etc. The thickness of the plated layer may vary from 4 to 30 hundred-thousandths of an inch. When freshly plated, this chromium layer is said to be activated or susceptible to grease. This quality which may be lost with age, may be revived by treatment with hydrochloric acid. The work may be established on the plate by hand transfer methods or in the usual photo-lithographic manner. The non-printing parts may then be passivated with oxidizing agents such as potassium permanganate, hydrogen peroxide or chromic acid. Other acids mentioned as possible passifiers or etches are tannic, perchloric and sulfuric. The patent also states that the chromium layer may be sensitized with a silver-gelatine emulsion which may then be exposed and processed to give a printable image. It is claimed that where the image is formed of greasy ink only, the ink may be washed off with suitable solvents and the plate used again without the expense of re-graining. It is also suggested that a similar treatment may be given to intaglio and relief printing plates and that water may then be used to aid in keeping the non-printing areas clean.

Comment: It is difficult to see how this invention adds much that is new to the art of lithography. It has been recognized for a long time that the chemical activity of zinc and aluminum makes these metals more difficult to use in the lithographic process than would be the case if less active metals such as chromium or nickle were available. The fact that these last two metals are expensive and difficult to roll in the thin sheets necessary for offset work has led many inventors to experiment with the idea of plating these metals on less expensive base materials. However, as any automobile owner knows, it is extremely difficult to obtain a perfectly continuous coating, especially one which would stand up under the twisting and bending to which a press plate is exposed.

It is fascinating to consider that this inventor is actually suggesting that letter press and intaglio printing would benefit by the addition of a dampening system. Perhaps after years of fighting the water which is supposed to dull his inks and retard their drying, the lithographer will wake up some morning to find that he had the right idea all the time.

Planographic Printing Plate

U. S. Patent No. 2,205,998 *issued to William B. Prescott of Dover, Mass. and assigned to the Addressograph-Multigraph Corporation.* This patent covers the use of parchment paper backed up with a layer of heavy kraft from which it is separated by a waterproof layer. The inventor claims that the proper kind of parchment will be sensitive to grease when dry and if a greasy image is established on the sheet when dry, it will not be displaced when the parchment surface is wet with water. When wet however, the parchment will refuse grease and can therefore be used in the offset press. A plate of this character is naturally well adapted for use in the typewriter. It can also be made semi-transparent so that tracings can be made by laying the plate over the subject. During the process of manufacture the plate may be printed with guide marks on any one of the three layers. These marks may be used by the typist but will not print when the plate is put in the press. It is also claimed that errors in typing may be erased and corrected in the same manner as if the typing were on paper.

Comment: The use of parchment as outlined above is interesting because the material itself absorbs water to a considerable degree. Here then, is a material which can have a practically smooth surface and which should print on the offset press with a minimum of surface water. Parchment paper is paper which has been treated with strong sulfuric acid under controlled conditions. The fibres of the paper undergo a chemical change during which they become somewhat jelly-like and tend to lose their identity. After the sulfuric acid has been washed out and the paper dried, it becomes translucent and has considerable strength even when wet. Parchmentized paper has been used for some time for food wrappers.

No mention is made in the patent of the possibility of treating the parchment surface with bichromates. If the parchment would absorb any appre-

(*Turn to page* 83)

RELIABLE LITHOGRAPHIC PLATE CO., Inc.

The Pioneer Plate Grainers of America

ALL PLATES

INCLUDING THOSE REGRAINED FOR MULTILITH

ARE MARBLE GRAINED

"RELIABLE" is far more than just part of our name. It means to our customers that our plates can be depended on to give first-class results because from start to finish the graining is handled by experts of long experience. Our plates are made right to work right—*they are reliable!*

We carry a full supply of Zinc and Aluminum Sheets for Offset, Rotaprint Presses, in fact for all the lithograph trade.

MILL SELECTED METAL USED EXCLUSIVELY

(MADE IN U.S.A.)

A trial order should "sell" you our services and products.

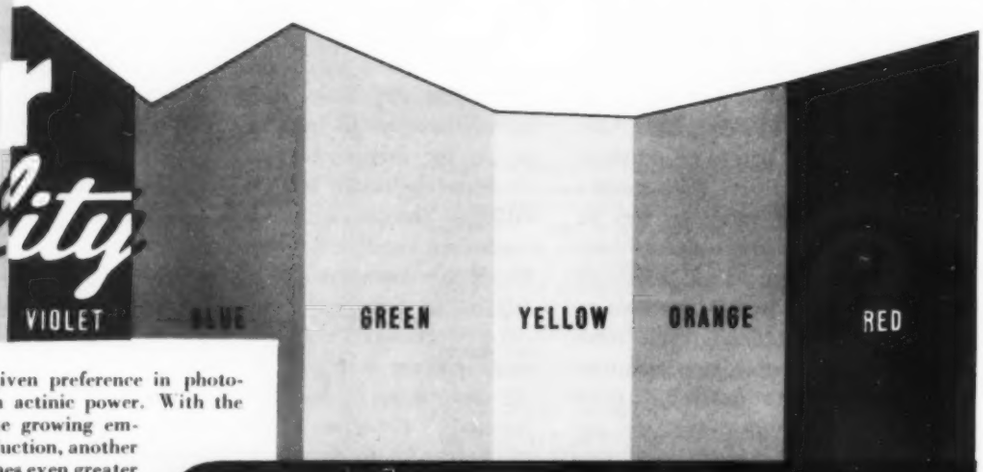
RELIABLE LITHOGRAPHIC PLATE CO., Inc.

INCORPORATED 1916

17-27 Vandewater St. *and* 45 Rose St., New York, N. Y. • Phone: BEekman 3-4542 / 3-4531

color Quality

COLOR DISTRIBUTION OF LIGHT FROM WHITE FLAME CARBON ARC



● The carbon arc was first given preference in photolithography because of its high actinic power. With the increasing use of color and the growing emphasis on fidelity of color reproduction, another property of the carbon arc assumes even greater importance. This property is COLOR QUALITY.

The white flame carbon arc supplies ALL the primary colors at substantially equal intensity. This fact greatly simplifies the problem of obtaining ACCURATE *Color Reproductions.*

USE NATIONAL TRADE-MARK PHOTOGRAPHIC CARBONS

NATIONAL CARBON COMPANY, INC.

Unit of Union Carbide UCC and Carbon Corporation
Carbon Sales Division: Cleveland, Ohio
General Offices: 30 East 42nd Street, New York, N. Y.
Branch Sales Offices:
New York - Pittsburgh - Chicago - St. Louis - San Francisco

IN AND ABOUT THE TRADE

Hubbard Leaves Harris

Howard M. Hubbard has resigned his position as secretary-treasurer of Harris-Seybold-Potter Co., Cleveland, to become president and general manager of Greenfield Tap & Die Corp., manufacturer of cutting tools, it was announced last month. The resignation was effective Sept. 1.

Mr. Hubbard has been with the Harris Company ten years, joining the organization a few years after it was formed by consolidation of the Harris Automatic Press Co., of Cleveland, the Premier and Potter Press Co., of Derby, Conn., and the Seybold Machine Co., of Dayton, O. As managing director of the Canadian and Seybold Divisions of Harris-Seybold-Potter, Mr. Hubbard has become well-known in the graphic arts industries.

•

George L. Weiss Dies

George L. Weiss, 66, member of the sales and service department of Kohl & Madden Printing Ink Co., Chicago, died last month. Mr. Weiss, who was well-known throughout the lithographic industry, learned his trade at the United States Printing & Lithograph Co., Cincinnati. Before joining Kohl & Madden six years ago he had been with Harris-Seybold-Potter Co.

•

PAC Resumes Meetings

General Printing Ink Corp., sponsors of PAC, the Printing and Advertising Clinics which were begun last Spring, announces resumption of the series on September 16th. The topic to be discussed is consumer relations. Speakers will be Dr. Kenneth Dameron of Ohio State University and director of the Committee on Consumer Relations in Advertising; and Ephraim Freedman, director of Macy's Bureau of Standards, New York.

•

Hammer Moves N. Y. Office

The New York office of Hammer Dry Plate and Film Co., formerly at 161 West 22nd St., moved last month to larger quarters at 350 Hudson St. Larry Brooks, formerly with Gevaert Co., New York, has joined Hammer Dry Plate, it was also announced. Mr.

Larry Brooks . . . joins Hammer

Brooks has been in the graphic arts industry for the past twenty years having served his apprenticeship with the Brooks Banknote Co., Springfield, Mass. He was color demonstrator for Gevaert for five years prior to his present connection.

•

Young Lithos Resume Meetings

The Young Lithographers Association, New York, will resume its monthly dinner meetings at the Advertising Club on October 9th with a discussion of "Super Markets and Packaging." Speakers for the evening have not yet been announced. The meeting will be open to all members of the lithographing industry. Additional meetings have been scheduled by the Young Lithographers as follows: November 13, on the subject of "Management and Lithographic Progress"; December 11, on "Paper as a Manufacturing Problem and a Sales Help", and January 8, on "Customer Presentation and Use of Vital Statistics."

•

Litho Club Meets Sept. 25

The New York Litho Club will resume its fall and winter meetings at the Building Trades Club, 2 Park Avenue, New York, on September 25 with a talk by W. Gibson Carey, Jr., president of the U. S. Chamber of Commerce. His subject will be "Free Men Build Nations," and will be accompanied by a sound film tracing the dramatic story of the achievements of American business. Immediately preceding the talk the Litho Club will gather for a dinner in the Building Trades Dining Room at 6:30.

Members of the National Music Printers & Allied Trades Association, New York, enjoy a fishing party. Left to right, they are: Joseph Del Guercio, Frank Nekola, Morgan O'Brien, Adolph Kuperman, Gilbert J. Clappin, Michael T. Mahony, Fred Stahl and Allen Brookhouse. Al Rayner, Rayner, Dalheim & Co., Chicago, is president of the association; William R. Teller, Jr., Robert Teller Sons & Dorner, New York, vice president; M. T. A. Mahony, Mahony & Roese, New York, treasurer; and Gordon McGarry, New York, executive secretary.

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Transfer Paper

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Technically Made in U. S. A.

FOR HYKLAS LITHOGRAPHERS

Years of demand for Transfer Paper manufactured in America has been becoming greater and greater and due to the unsettled conditions in Europe we have succeeded in accomplishing the manufacture of this paper.

During the last World War crisis we manufactured a TRANSFER PAPER which was tried, tested and proven to be the exact need for the Lithographic Transferer in America.

The custom of Siebold of always handling nothing but the best, assures you that this HYKLAS American manufactured TRANSFER PAPER will meet the requirements of the most critical and exacting transferer.

WHY NOT ASK FOR TRIAL SHEETS AND LET US QUOTE YOU?

IMMEDIATE DELIVERY IN TWO SIZES:

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•

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"Soften up" your HARD customer with tried and tested HALFTONE OFFSET . . . as *dependable* for *results* as it is *easy* to use.

"In-between" offset enamel and regular offset . . . it is just the stock for uniformly good results at a fair price.

Write for samples. Dull or gloss . . . no mottling.

Save money by shipping via Miami Valley Shippers' Assn.

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A BUY-WORD FOR HIGH-GRADE PAPERS

Correction

In the editing of the article "Synthetic Rubber Assumes a New Role in Industry," by William C. Goodwin, development engineer, Dayton Rubber Mfg. Co., which appeared in the July issue of MODERN LITHOGRAPHY, the author has, due to an error on our part, been misquoted. In the first paragraph of the third column on page 28, the first sentence reads as follows: "In the production of synthetic rubber rollers for offset presses, there has been developed after sixteen years of research a combination of synthetic compounds which, it is felt, will meet the requirements of modern printing." In Mr. Goodwin's original manuscript this sentence read: "Therefore, after sixteen years of research to find a combination of synthetic compounds to make a satisfactory printing roller, today, we have such a roller that meets the requirements of modern printing."

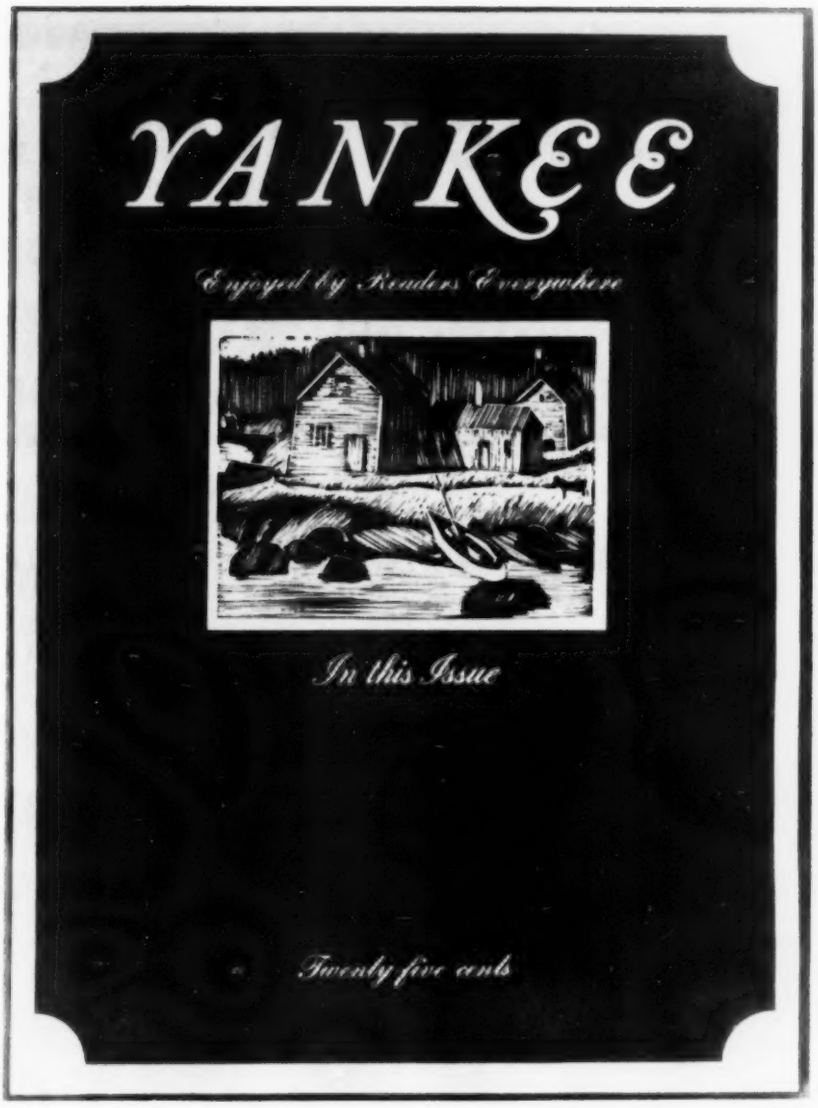
Also, on page 29, last sentence in the article, which reads: "The lithographer is advised to investigate their (synthetic rubber rollers) printing qualities through actual demonstration before buying," was not in the original manuscript submitted by the author. It was added by the editor, the thought being that in view of the reference to good and bad synthetic rubber rollers made by the author in the preceding sentence, demonstration before buying was the logical procedure to suggest, in the interests of both the manufacturers of tried and tested products, such as represented by the author, and the lithographer. The statement was in no way meant as a reflection on the merits of synthetic rubber rollers.

We sincerely regret any embarrassment to the author which may have resulted from our editing of the manuscript.

•

Writes on Point-of-Purchase

Lloyd L. Grisamore, president of the Point-of-Purchase Advertising Institute of Chicago, and executive of the Arvey Corp., that city, is the author of an article entitled "Let's Look Into Point-of-Purchase Advertising", in the 1940 Chicago Advertising Year Book edition of the Printing Art. Reprints of Mr. Grisamore's article are being distributed and may be obtained on request. The article is a discussion of how point-of-purchase advertising may be evaluated as an advertising medium with a circulation basis similar to other media.



***Yankee*, well-known New England publication, has gone offset with the August issue. The magazine, which runs 48 pages and cover, and has a run of 27,000, is being lithographed by Courier-Citizen Co., of Lowell, Mass. It is printed on a Hoe offset press which delivers the entire 48 pages at one time on a sheet approximately 46 x 51½. The paper used is Fairmont Offset, 60 lb., and the ink IPI Offset Black, BX 861. *Yankee* publishers say that their readers respond favorably to the change.**

•

M.A.S.A. Holds Annual Meeting

The Mail Advertising Service Association of Detroit held its 20th annual convention at the Hotel Stevens, Chicago, September 8 to 11. Among the speakers were Merle Burgess, Burgess-Beckwith Co., Minneapolis, who spoke on "How to Build Sales Through Offset," which was a presentation of a detailed program for the black and white offset printer to follow in order to increase his sales volume; Edward M. Mayer, Jr., of James Gray, Inc., New York, on "Postal Facts and How to Use Them." Among other features of the convention were an exhibition of photo-offset mail advertising, and a production clinic on offset printing led by Louis Hinderstein.

•

Ludlow Typograph Corp., Chicago, announces that its Tempo heavy condensed face is now ready for delivery in sizes from 10 to 72 point. The latest addition is the twelfth member of Ludlow's Tempo typeface family.

SERVICE PLUS QUALITY!

HAS MADE OUR PLANT THE WORLD'S LARGEST

WE SPECIALIZE IN SMALL PLATES
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ZINC and ALUMINUM PLATES
UNGRAINED—GRAINED—REGRAINED

LITHOGRAPHIC PLATE GRAINING CO.
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37-43 BOX STREET., BROOKLYN, N. Y. EVERGREEN 9-4260, 4261

GOOD INKS AS YOU LIKE THEM

Color strength and brilliance plus uniformly good press working properties make Sinclair & Carroll inks the choice of leading lithographers throughout the country. In pressrooms, large and small, these inks are winning new friends and proving their all around dependability.

Sinclair & Carroll inks are carefully supervised in their manufacture by men whose lifetimes have been spent not only in supplying your standard ink requirements, but also in developing and improving your inks to their present high standard.

Try Sinclair & Carroll inks on your next job. You will like them for the work they do. We will welcome the opportunity to serve you.

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Steel Company

PUBLISHES A DELUXE LITHOGRAPHED House Organ

QUALITY, UTILITY and BEAUTY of format, with news articles of high interest value are the features emphasized in *STEEL HORIZONS,* House Organ of the Allegheny Ludlum Steel Corporation, Pittsburgh, Pa. Reproduced on the reverse side of this page is the cover illustration used on the current issue which is Volume II No. 2 of the series.

STEEL HORIZONS is a 24-page *FORTUNE*-size magazine. It is a product of the Advertising-Printing Division of REPUBLIC BANK NOTE COMPANY in Pittsburgh, Pa. Four-color offset-lithography from deep-etch plates has been used to obtain magnificent results from a wide range of original illustrative material, including Kodachromes, tinted photographs, colored art work and oil paintings.

Contents include a variety of photographic and story treatments covering late developments in the manufacture and use of stainless, tool and electrical steels, written in a non-technical and interesting vein.

Walker & Downing of Pittsburgh, Pa., is the advertising agency. The magazine is edited by C. P. Richardson, Account Executive of the Agency.

In keeping with its editorial concept and physical makeup, *STEEL HORIZONS* is printed on fine paper, using a grade of the quality of Becket Chillon-finish or Hammermill Laurel-finish Offset, in the 100 lb. weight. Hammermill paper, used for the most recent issues of the magazine, also appears in this insert.

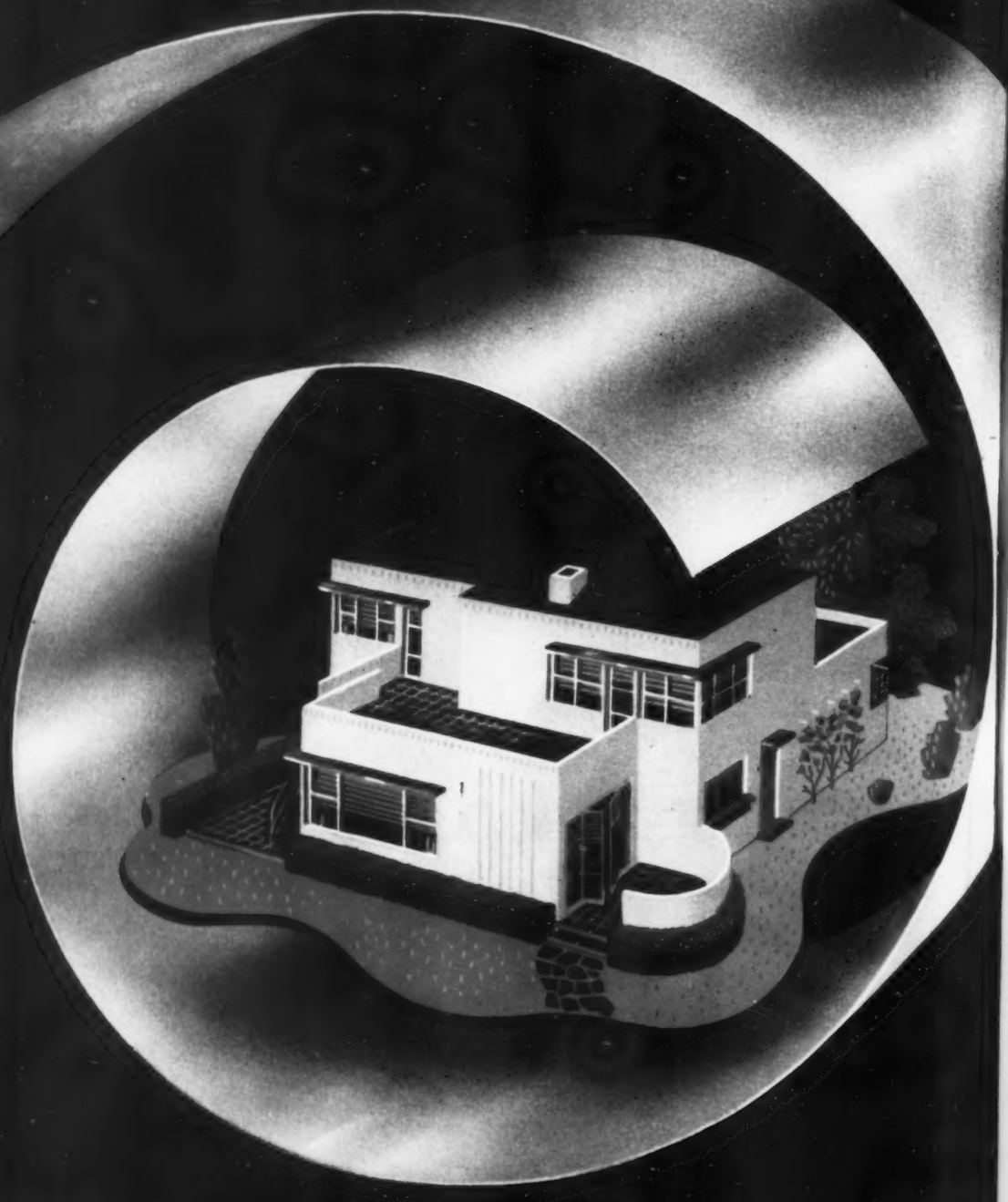
ADVERTISING . PRINTING DIVISION

REPUBLIC BANK NOTE COMPANY, PITTSBURGH

Plates by Stevenson Photo-Color Co., Cincinnati

STEEL HORIZONS

VOLUME TWO · NUMBER TWO · PUBLISHED BY ALLEGHENY LUDLUM STEEL CORPORATION · PITTSBURGH



Chicago Museum Installs Lithography Exhibit

THE Museum of Science and Industry at Chicago is holding an exhibition of lithography beginning the month of October. Covering 15,000 square feet, the display will be a permanent exhibit of current printing practices for the instruction of the public. It embraces offset, letterpress, photo-engraving, book binding and ink. Modern equipment, demonstrated in actual operation, plus motion pictures and lectures, give visitors an understanding of the basic principles involved in each process. Formal opening of the newly completed department is set for October 1.

In the lithographic section, steps in production of a four-color offset job are traced from the color-separation camera to the four-page, 8 x 11 inch folder, which will be distributed as it comes from a Harris press, as a souvenir of the visit. A display of chemicals required for preparation of negatives and for plate-making operations will stress the chemical nature of the lithographic process. Continuous tone and half-tone negatives and positives, grained and ungrained zinc and aluminum plates, and effects obtained on different types of offset papers will suggest the flexibility of the process and its adaptability to a wide range of purposes.

Donors of equipment and materials shown in the lithographic section include the following:

Harris-Seybold-Potter Co., Harris offset press; Lanston Monotype Machine Co., M-H vertical plate coater; Lithographic Equipment & Supply Co., camera; Theo. A. Schmidt Div., lithographic hand press; U. S. Printing & Litho. Co., plate graining machine; Rightmire & Berg Co., negatives, positives, zinc prints, proofs; Chicago Litho Plate Graining Co., zinc plates; Gevaert Co. of America, photographic chemicals; Harold M. Pitman Co., platemaking chemicals; Rapid Roller Co., rollers and blankets; Curt Teich & Co., Inc., lithographic stones; Magill-Weinsheimer Co., art work; M. & L. Typesetting & Electrotyping Co., typesetting; T. S. Youngsman & Co., paper; Stadler Studios, Inc., black and white photography.

The Lithographers National Association supplied seven large photo-murals showing various steps in the process. The Chicago School of Printing and Lithography will preprint part of the souvenir folder, leaving its back page for imprinting at the demonstrations. In another department of the museum further interest in lithography is stimulated by a display furnished by Rand, McNally & Co., which shows map production by the offset process.

International Printing Ink Corporation donated the ink display, which shows materials and machinery required in manufacturing operations, supplemented by a display of various surfaces to which ink is applied, such as tin, textiles, wood, etc. Colored transparencies show scenes in IPI factories. A copy of the company's movie "Keeping In Touch," has been placed in the museum's film library.

Cooperating with D. M. MacMaster, curator, in preparing the exhibit was an advisory committee headed by Thomas E. Donnelley, of R. R. Donnelley & Sons Co., and including Arthur A. Goes, president of Goes Lithographing Co. Assisting Mr. Goes were Frank G. Hochegger, president of the Chicago Litho Club, and Z. W. Adams of Magill-Weinsheimer Co.

•

An all-day Printing and Advertising Clinic under the sponsorship of General Printing Ink Corp., New York, will be one of the features of the "Living Lithography" exhibition to be held during the entire month of October in Philadelphia. Herbert Kauffman, advertising manger of General Printing Ink and chairman of the Clinic, announces the following speakers: Dr. Howard T. Hovde, Professor of Advertising and Merchandising, Wharton School of Finance, University of Pennsylvania, program chairman; Harry T. Peters, New York, who will review the development of the first commercial era of Lithography; W. T. Misuraca, National Can Co., who will talk on "The Transition of Lithography to Modern Commercial Production;" M. E. Goldman, Aitkin-Kynett Co., Philadelphia, who will discuss "Types of Lithography for Advertising;" D. J. Finn, advertising manager, R. C. A. Manufacturing Co., on "Lithography as a Merchandising Tool;" and W. J. Wilkinson, president Zeese-Wilkinson, Inc., Long Island City, on "Lithography in the Future."

•

John J. Roche, 49, of Boston, well-known New England litho supply agent, died at his home in Forest Hills, N. Y. on August 24th of a heart attack. Mr. Roche was a native of New York City and entered the printing field in 1905. After an extensive experience in numerous printing establishments in New York City he established an office in Boston, Mass. He represented J. H. & G. B. Siebold, Harold M. Pitman Co., and others.

•

The Direct Mail Advertising Association is holding its annual convention at Atlantic City, N. J., October 2 to 4. L. Rohe Walter, president of the association, has extended an invitation to all suppliers of direct-mail material to exhibit their products throughout the meeting.

•

Horace W. Reed, president of the Niagara Lithograph Company of Buffalo, has been named general campaign chairman of the Boy Scout campaign of the Erie County Council's lakeshore area. This is the second time Mr. Reed has been selected as chairman of this drive.

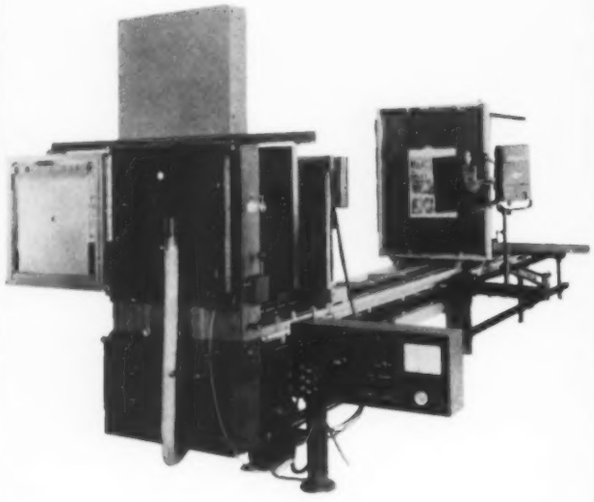
•

Alex Dulfer Printing and Lithographing Co., San Francisco, has recently installed a new 22 x 34 Harris Offset Press. The company specializes in the production of hotel stationery.

•

Brown & Bigelow, St. Paul, Minn., calendar house, has announced the appointment of C. E. Ball as sales promotion manager, while John Frohlicher has been made advertising manager.

VALETTE EQUIPMENT LEADS AGAIN!



A completely electrified color precision camera. The following units are electrically operated: lens board, copy board and transparency holder, lens diaphragm, flashing lamp, compensating lens, arc lamps and lens shutter.

One glance at this camera shows its advanced engineering and foolproof features.

Write for complete information.

LITHO EQUIPMENT & SUPPLY CO.

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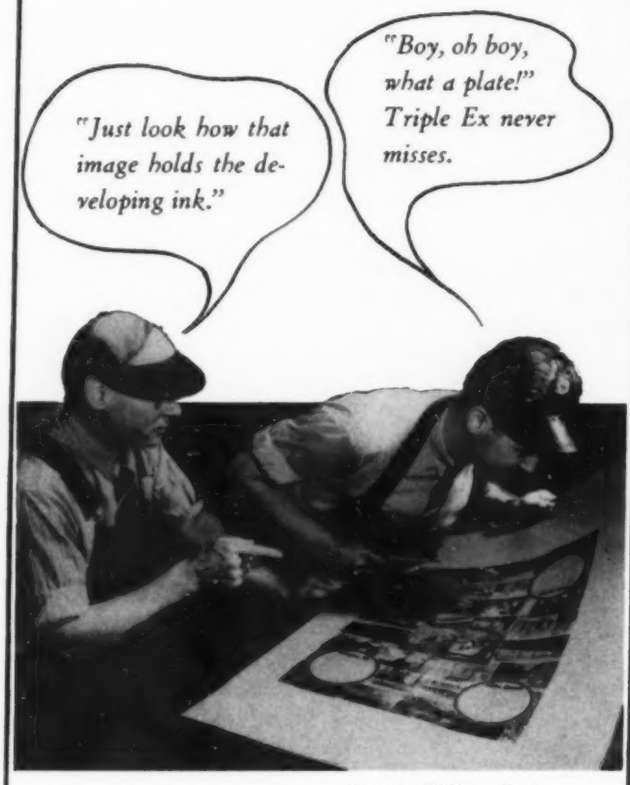

Photo by Wildman Studios

You'll say so too, when you use TRIPLE EX, the new concentrate liquid albumin plate coating. Manufactured expressly for use in photolithography, it is

Extra SENSITIVE DURABLE SHARP

We manufacture albumin products only, and only albumin products for the Graphic Arts.

Sold through distributors. Ask your dealer.

THOR HOLLAND CO.

(Producers of "EGGSACT" Processed Egg Albumin Concentrate)

7048 Jones Ave. N. W. SEATTLE, WASH.

Students enrolled in the 1940 Intensive Course in the Fundamentals of Lithography, offered by the Lithographic Technical Foundation, New York, take time off for a picnic and ball game at Woodlands, N. Y. The Foundation recently graduated a new crop of young lithographers.

Honor White of Mallinckrodt

George White, for the past forty-one years in charge of the city sales department of the New York Branch of the Mallinckrodt Chemical Works, St. Louis, was honored on his 72d birthday last month with a surprise party at the Drug & Chemical Club, New York. He was presented with a fountain pen desk set. B. M. Spencer of B. M. Spencer & Co., New York, organized the party which was attended by a number of Mr. White's close friends in the trade.

•

Peerless Picnics

About 400 persons were present at the annual picnic held by Peerless Litho Co., Chicago, for employees and their families at Hoffman's Grove in the Cook County Forest Preserves near the Windy City last month. George D. Luehrs, vice president, assisted by, a committee of employees, arranged an entertainment program which included a base ball game followed by a picnic dinner.

•

Scores Hole-in-One

Jack Tonnsen, sales manager, Hill-Hentschel Co., manufacturers of lithographic inks, was credited with making a hole-in-one at the Greenbriar Hills Golf Course in St. Louis last month. Jack, who won the trophy in the men's amateur class with a shot 14 inches from the pin in a hole-in-one tournament last year, teed off on the 163 yard 10th hole with a No. 3 iron. His ball bounced on the front edge of the green and then crawled up and into the cup.

•

Planning Dot Etching Course

Arrangements are being made by the Lithographic Technical Foundation and the New York Trade School to have dot etching on film taught during the next school year, it is announced. Edward Olownia will serve as instructor. Persons interested in such a course should communicate with the Lithographic Technical Foundation, 220 East 42nd St., New York.

•

Foundation Graduates Fifteen

Another class of students enrolled in the Intensive Course in the Fundamentals of Lithography, sponsored by the Lithographic Technical Foundation, New York, completed their work last month. Comprising a class of fifteen men the group hailed from eight states, Costa Rica and Canada. Twelve of the men spent Sept. 3 to 6 in Rochester for special instruction at the Eastman Kodak Company.

The students heard lectures by many well-known experts on the scientific aspects of lithography. Among those who spoke to the class were:

Prof. Paul W. Dorst, of the Foundation's Research Staff; Fulton MacArthur; Richard W. Gardner and John McMaster, Eastman-Kodak Company; Michael Annick, Rutherford Machinery Company; A. Stull Harris, Harris-Seybold-Potter Co.; Wm. Echkart, R. Hoe & Company; S. Karpeles, Imperial Paper & Color Corp.; Chester Pope, Pope & Gray; B. D. Stevens, Miehle Prtg. Press & Manufacturing Co.; Wm. R. Maull, The Mead Corporation; and Dr. Joseph Mattiello, Hilo Varnish Company.

Visits to the following plants were also included in the course: Brett Lithographing Company, Zeese-Wilkinson, Intaprint Corporation, United States Printing & Litho. Co., Jersey City Printing Company, Swart-Reichel, Inc., Huebner Laboratories, Interchemical Research Laboratories, Sinclair & Valentine Company, Vulcan Proofing Company, Dill & Collins Company, Gevaert Company of America.

•

Offers Free Art Course

A free evening course in freehand and reproduction lettering, and in silk screen stencil printing will be given at the New York Evening School of Industrial Art, 257 West 40th St., New York, during the coming school year. J. I. Biegeleisen, author of "The Silk Screen Printing Process" and "The ABC of Lettering" is in charge of the course. Registration begins the week of September 9, 1940.

•

Guild Issues Roster

The Printers Supplymen's Guild of Chicago has just issued a 40-page booklet containing its constitution and by-laws, and a complete membership roster. The latter shows both business and residence addresses and phone numbers of members, and a brief statement describing their business.

AN INVITATION . . . . . .

to N. A. P. L. MEMBERS and GUESTS

During your Convention in Chicago, fifteen minutes or less from your headquarters, you can see a demonstration of the "CHICAGO" Portable Paper Conditioner in operation. The efficiency and low cost features of this Machine will interest you.

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Everyone in the lithographic industry needs a copy of this book !

THE LITHOGRAPHER'S MANUAL HAS BEEN DESIGNED TO SERVE:

- Photo-composing Machine Operators
- Instructors Printing & Lithographing
- Equipment & Supply Manufacturers
- Vocational Guidance Experts
- Commercial Photographers
- Lithographic Plant Owners
- Letterpress Plant Owners
- Advertising Agencies
- Metal Lithographers
- Camera Operators
- Small Newspapers
- Trade Associations
- Superintendents
- Shop Foremen
- Typographers
- Plate Makers
- Proofreaders
- Copy Writers
- Retouchers
- Estimators
- Pressmen
- Strippers
- Opaquers
- Salesmen
- Students
- Chemists
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- Artists
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MODERN LITHOGRAPHY
254 W. 31st ST. NEW YORK, N. Y.

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• The Lithographic Industry is the fastest moving branch of the Graphic Arts. In no other branch of the industry in recent years has there been such swift-paced progress. Consequently, a reference volume such as THE LITHOGRAPHER'S MANUAL, encompassing as it does every worthwhile new development of the past two years *between the covers of a single book* is indispensable! Everyone in the lithographic industry—or in any way connected with the industry, should own a copy!

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NEW EQUIPMENT AND BULLETINS

Expand Platemaking Department

Stearns & Voyta, Chicago, have just enlarged their offset platemaking department by the installation of a 52″ Valette Camera with 44″ screen. The camera is equipped with a special masking feature for color separation work.

•

To Manufacture "U-Neek"

Allan B. Croke Co., Boston, has announced the development of a new lithographic plate-coating solution called "U-Neek." The primary feature of the new formula is described as its property of keeping indefinitely. It is said to be used in the same manner as the albumin process and to be a near approach to deep-etch. The Croke Company is the sole manufacturer of the material. Fuchs & Lang Mfg. Co., division of GPI, New York, has been named distributor of the product.

•

Announces New Webendorfer

Webendorfer Division of American Type Founders, Inc., Elizabeth, N. J., announces a new high speed web offset press with a speed of 25,000 to 30,000 sheets per hour. The first of these units is now under construction at the ATF-Webendorfer plant in Mt. Vernon, N. Y.

It is expected that the press, because of its speed and flexibility, will become a regular unit in the ATF-Webendorfer web offset line, according to John B. Webendorfer, vice president. The standard unit will be constructed to carry a maximum width web of 15″ and will be equipped with a sheeter to cut off a 17″ sheet. It will lithograph one color only, but the press is so built that additional impression units, up to a total of four, may be added it is said. Arrangements are being made so that various attachments, such as numbering, punching and perforating devices, may be built into the press at time of construction, or added later at the convenience of the purchaser.

•

New Variable Contrast Paper

The Defender Photo Supply Co., of Rochester, N. Y., has just announced a new type of enlarging paper which in a single grade is said to yield to any desired degree of contrast. The new paper is called Defender Varigam.

With the new product it is said to be possible through proper manipulation to obtain an infinite number of contrasts from a given negative or, conversely, to obtain prints of uniform quality from negatives differing widely in their contrast and density characteristics. This change of contrast is said to be affected by varying the color of the printing light.

While most photographic papers are sensitive to blue light only, Defender Varigam, it is claimed, is sensitive not only to blue, but also to green and has a characteristic of soft gradation in the green sensitive region and high contrast in the blue sensitive region.

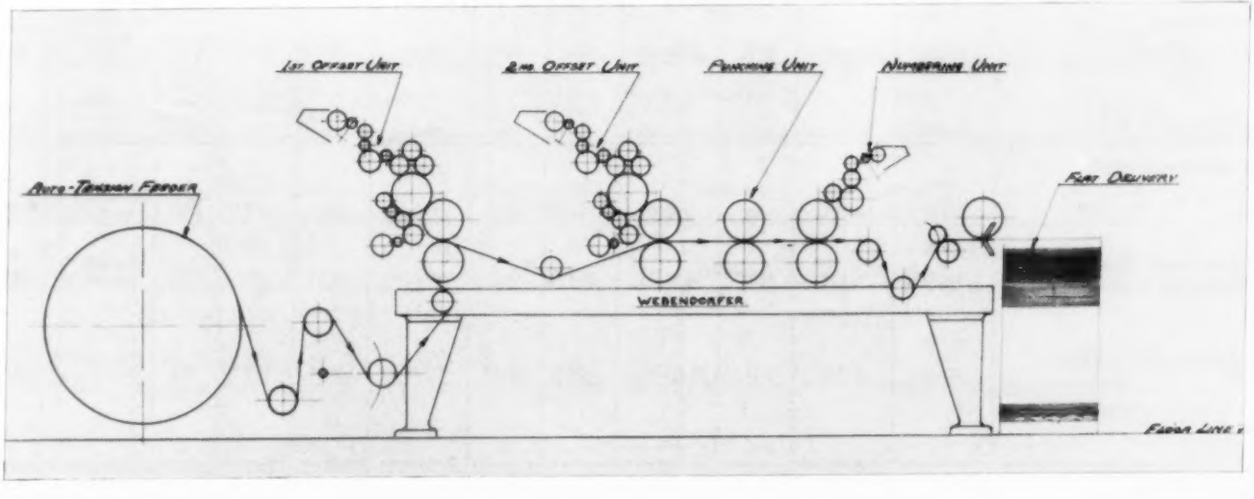
Therefore, it would appear that if an exposure is made by blue light (through a blue filter), maximum contrast can be obtained (equal to that of Defender Velour Black Contrast 4). A green filter passing green light only has been found to be in light transmission, hence with Varigram, a yellow filter which passes the green light as well as the red is used. Exposure with this filter produces a print of soft gradation (even softer, it is said, than obtainable with Velour Black Soft 1).

To produce a satisfactory print, exposures are made with these two filters, so balancing the timing with each that the opposite effects of softness and hardness are blended to any degree of contrast desirable. Further details are available on request.

•

The Outdoor Advertising Association of America will hold its annual convention at the Drake Hotel, Chicago, November 14 to 16.

New ATF-Webendorfer two-color offset press.



Offset Press

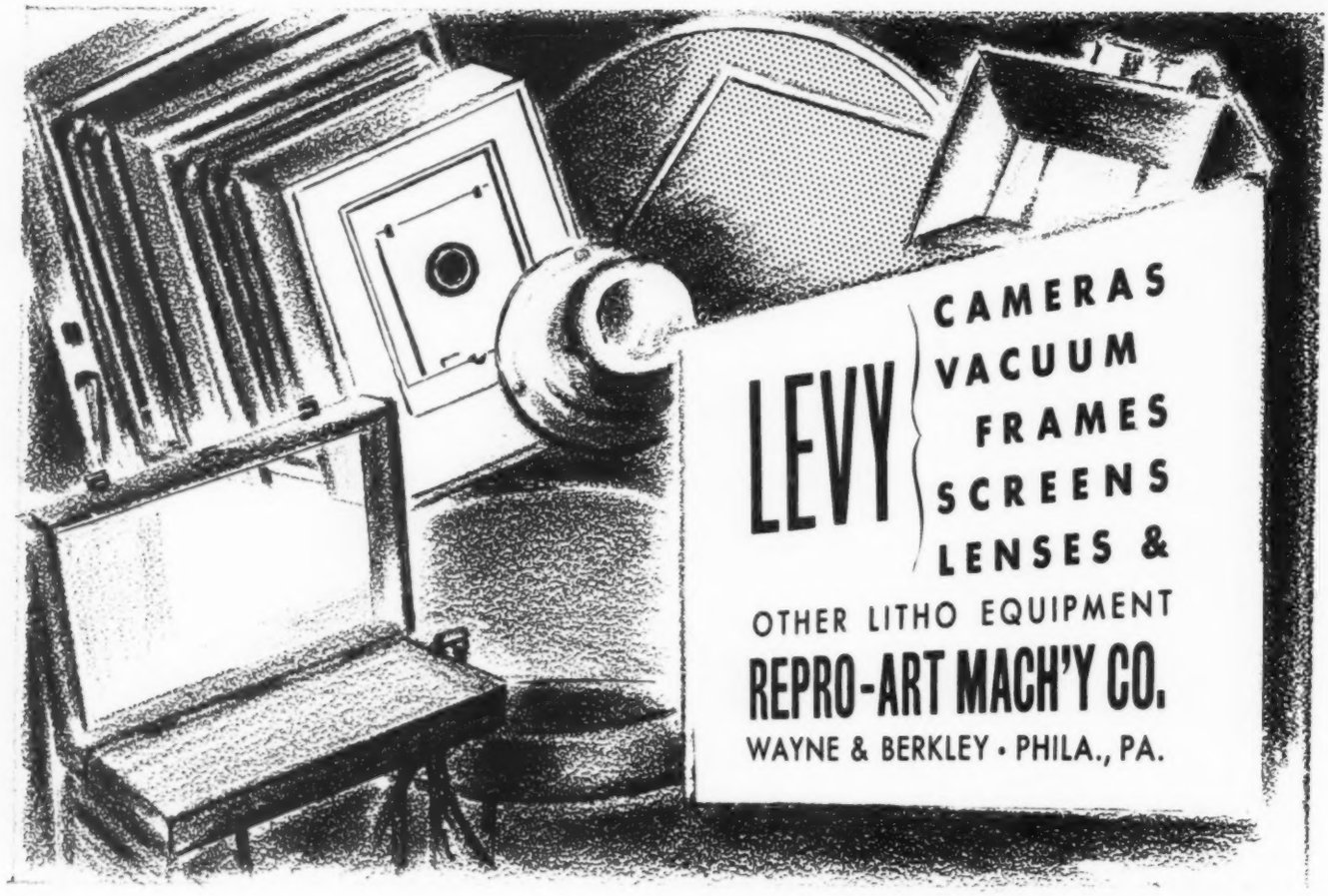
Revised to

Press Designation	Sheet Size Limits	Maximum Size Print	Minimum Gripper Margin	Plate Dimensions	Plate Thickness	Cut of Plate Cyl.	Blanket Dimensions	Blanket Thickness	Cut of Blanket Cyl.	Speed Range	Feeder	Feeder Capty.
HARRIS												
17x22 Harris LSB—Single Color	8½x11 to 17½x22½	17¼x22½	5-16"	19¾x23	.010" to .012"	.015"	23¾x23	.062" to .065"	.075"	Up to 7000	Harris Auto. Suction Pile	20"
21x28 Harris LSN—Single Color	10x14 to 22x30	21½x29	5-16"	24½x30	.012"	.015"	26½x30	.062" to .065"	.075"	Up to 6000	Harris Auto. Suction Pile	36"
22x34 Harris EL—Single Color	10x14 to 23x36	22½x35	5-16"	25½x36	.012"	.015"	29¼x36	.062" to .065"	.075"	Up to 5500	Harris Auto. Suction Pile	42"
26x40 Harris LSQ—1-Color LSR—2-Color	17x22 to 28½x41	28½x40½	5-16"	32x41	.014"	.020"	37x41½	.062" to .065"	.075"	Up to 5500	Harris HTB Stream Feeder	42"
35x45 Harris LSS—1-Color LST—2-Color	17x22 to 36x48	35⅝x47½	5-16"	40x48	.014"	.020"	45x48½	.062" to .065"	.075"	Up to 5000	Harris HTB Stream Feeder	42"
42x58 Harris LSJ—1-Color LSK—2-Color LSL—3-Color LSM—4-Color	22x34 to 42x59	41⅝x58½	5-16"	47¼x59	.014"	.020"	52¼x59½	.062" to .065"	.075"	Up to 5000	Harris HTB Stream Feeder	42"
46½x68½ Harris LSF—1-Color LSG—2-Color 3-Color LSH—4-Color	25x38 to 46½x68½	46½x68	5-16"	49½x68½	To Customer's Specifications		57x68½	.062" to .065"	.075"	Up to 4500	Harris HTB Stream Feeder	49"
HOE												
30x42" Hoe Single Color Super-Offset Press	17x22 to 32x43	29¾x42¾	5-16"	34x43	As specified by purchaser		42x43½	As specified by purchaser		Up to 5000	Dexter	37"
41x54" Hoe Single Color Super-Offset Press	19x25 to 42x55½	41½x55	5-16"	45½x55¼	As specified by purchaser		54x55½	As specified by purchaser		Up to 4500	Dexter	43"
41x54" Hoe Two-Color Super Offset Press	19x25 to 42x55½	41½x55	5-16"	45½x55¼	As specified by purchaser		54x55½	As specified by purchaser		Up to 4000	Dexter	43"
50x72" Hoe One-Color Two-Color Three-Color Four-Color	25x36 to 50x72	49½x71½	½"	54x72½	As specified by purchaser		55x72¼	As specified by purchaser		Up to 5000	Dexter or Christensen	48"
Hoe Web Offset Presses Built to Customer's Specifications												
MIEHLE												
Miehle Offset No. 60	24x24 to 42x58	41½x58	⅜"	47¼x59	.020"	.020"	48x59½	.062"	.080"	Up to 5200	Dexter	44"
Miehle Offset No. 69	24x34 to 46½x67½	46x67	⅜"	50x68	.020"	.020"	51x68	.062"	.080"	Up to 4500	Dexter	44"
NEW ERA New Era Multi-Color Web Offset Press Built to Customer's Specifications												
RUTHERFORD												
20x26"	20x26	19½x25	¼"	22½x27	.012"	.012"	27x25	.062"	.075"	Up to 6000 close register 5000	Rutherford Suction Pile	32"
Rutherford 20x29"	20x29	19½x28	¼"	22½x30	.012"	.012"	30x25	.062"	.075"	Up to 6000 Close register 5000	Rutherford Suction Pile	32"
ATF—WEBENDORFER												
Little Chief 20 14x20"	6x8 to 14x20	13½x19	3-16"	16x20	.011"	.010"	15¾x20	.065"	.070"	Up to 4500	Webendorfer Vacuum Air	17½"
ATF-Webendorfer Chief 20 17x22"	8x10 to 17½x22½	17x22	3-16"	20x22⅝	.012"	.015"	22x22⅝	.065"	.070"	Up to 5000	Webendorfer Vacuum Air	16½"
ATF-Webendorfer Big Chief 29 22x29"	11x17 to 23x29	22x28	3-16"	27½x28⅛	.012"	.015"	27x28¾	.065"	.070"	Up to 5000	Webendorfer Vacuum Air	24"
ATF-Webendorfer Multi-Color Web Offset Presses Built to Customer's Specifications												
WILLARD 22x30"	11x17 to 22x30	22x29	5-32"	24¼x30	.012"	.017" or optional	26x30	.062"	.075"	Up to 6500 close register 5400	Willard Reloading Suction Pile	40"

Specification Chart

September 1, 1940.

Delivery	Delivery Capacity	Number and Sizes of Covered Inking Rollers	Number and Size of Covered Dampeners	Approximate Weight	Approximate Floor Space	Electrical Specifications
Ext. Pile	18"	3 Form 2 9-16" 5 Distrs. 2½" 1 Ductor 2½"	2 Dampeners 2¼" 1 Ductor 2¼"	4750 lbs.	4-5"x6-7"	Press: 3 H. P. variable speed motor. Feeder: ¾ H. P. constant speed motor.
Ext. Pile	16"	3 Form 3" 5 Distrs. 2½" 1 Ductor 2½"	2 Dampeners 2¼" 1 Ductor 2¼"	8000 lbs.	5-10"x8-8"	Press: 3 H. P. variable speed motor. Feeder: 1 H. P. constant speed motor.
Ext. Pile	20"	4 Form 2 9-16" 6 Distrs. 2½" 1 Ductor 2½"	2 Dampeners 3 1-16" 1 Ductor 3 1-16"	10100 lbs.	7-1"x10-7"	Press: 3 H. P. variable speed motor. Feeder: 1 H. P. constant speed motor.
Ext. Pile	40"	(For each color) 4 Form 3½" 9 Distrs. 3" 1 Ductor 3"	(For each color) 2 Dampeners 3 1-16" 1 Ductor 3 1-16"	1-col. 20100 lbs. 2-col. 32100 lbs.	1-col. 9-7"x19-4" 2-col. 10-3"x24-0"	Press: 1-col. 7½ H. P.; 2-col. 10 H. P.; variable speed motor. Feeder: 3 H. P. constant speed motor. Delivery: 2 H. P. constant speed motor.
Ext. Pile	40"	(For each color) 4 Form 3½" 9 Distrs. 3" 1 Ductor 3"	(For each color) 2 Dampeners 3 1-16" 1 Ductor 3 1-16"	1-col. 23100 lbs. 2-col. 38100 lbs.	1-col. 10-2"x20-0" 2-col. 10-10"x24-8"	Press: 1-col. 7½ H. P.; 2-col. 10 H. P.; variable speed motor. Feeder: 3 H. P. constant speed motor. Delivery: 2 H. P. constant speed motor.
Ext. Pile	44"	(For each color) 4 Form 4½" 5 Distrs. 4" 2 Intermed. 2⅞" 1 Ductor 4"	(For each color) 2 Dampeners 3 1-16" 1 Ductor 3 1-16"	1-col. 34000 lbs. 2-col. 57000 lbs. 3-col. 80000 lbs. 4-col. 103000 lbs.	1-col. 12-3"x23-6" 2-col. 14-4"x27-7" 3-col. 14-4"x31-9" 4-col. 14-4"x35-10"	Press: 1-col. 10 H. P.; 2-col. 15 H. P.; 3-col. 20 H. P.; 4-col. 25 H. P., variable speed motor. Feeder: 3 H. P. constant speed motor. Delivery: 2 H. P. constant speed motor.
Ext. Pile	49"	(For each color) 4 Form 3¾" 7 Distrs. 3½" 2 Intermed. 3¼" 1 Ductor 3½"	(For each color) 2 Dampeners 3¾" 1 Ductor 3¼"	1-col. 45000 lbs. 2-col. 72000 lbs. 3-col. 98000 lbs. 4-col. 125000 lbs.	1-col. 13-1"x27-11" 2-col. 14-4"x33-10" 3-col. 14-4"x38-11" 4-col. 14-4"x44-0"	Press: 1-col. 15 H. P.; 2-col. 20 H. P.; 3-col. 25 H. P.; 4-col. 30 H. P., variable speed motor. Feeder: 3 H. P. constant speed motor. Delivery: 2 H. P. constant speed motor.
Ext. Pile	38"	4 Form 3½" 5 Distrs. 3½" 1 Ductor 3½"	2 Form 3½" 1 Ductor 3½"	24000 lbs.	19-7"x9-3"	7½ H. P. variable speed control.
Ext. Pile	43"	5 Form 3½" 5 Distrs. 3½" 1 Ductor 3½"	2 Form 3½" 1 Ductor 3½"	36500 lbs.	22-10"x11-3"	7½ H. P. variable speed control.
Ext. Pile	43"	(For each color) 5 Form 3½" 5 Distrs. 3½" 1 Ductor 3½"	(For each color) 2 Form 3½" 1 Ductor 3½"	69500 lbs.	27-7"x13-0"	10 H. P. variable speed control.
Ext. Pile	50"	(For each color) 4 Form 4½" 7 Distrs. 4½" 2 Ductor 4½"	(For each color) 2 Form 4½" 1 Ductor 4½"	1-col. 52000 lbs. 2-col. 79000 lbs. 3-col. 105000 lbs. 4-col. 132000 lbs.	1-col. 28'8"x14'6" 2-col. 33'8"x14'6" 3-col. 38'8"x14'6" 4-col. 43'8"x14'6"	Press: 1-col. 10 H. P.; 2-col. 20 H. P.; 3-col. 25 H. P.; 4-col. 35 H. P. Feeder: (Electric) 1-col. 3 H. P.; 2-col. 3 H. P.; 3-col. 3 H. P.; 4-col. 3 H. P. Delivery: (Electric) 1-col. 2 H. P.; 2-col. 2 H. P.; 3-col. 2 H. P.; 4-col. 2 H. P.
Pile	44"	4 Form 3½" 4 Form Riders 3½" 3 Drum 2¾" 1 Ductor 3½"	2 Form 3½" 1 Ductor 3½"	1-col. 32500 lbs. 2-col. 56000 lbs. 3-col. 80000 lbs. 4-col. 103000 lbs.	1-col. 22-6"x12-8½" 2-col. 27-8"x12-8½" 3-col. 32-10"x12-8½" 4-col. 38-0"x12-8½"	1-col. 10 H. P. 2-col. 20 H. P. 3-col. 30 H. P. 4-col. 40 H. P.
Pile	44"	4 Form 3½" 4 Distributors 3½" 3 Drum 2¾" 1 Ductor 3½"	2 Form 3½" 1 Ductor 3½"	1-col. 37000 lbs. 2-col. 65000 lbs. 3-col. 101600 lbs. 4-col. 133000 lbs.	1-col. 25-4"x13-5" 2-col. 31-4"x13-5" 3-col. 37-4"x13-5" 4-col. 43-4"x13-5"	1-col. 10 H. P. 2-col. 20 H. P. 3-col. 30 H. P. 4-col. 40 H. P.
Receding Auto Pile	18"	3 Form 2⅞" 7 Distributing 2½" 1 Distributing 2⅞" 1 Ductor 2½"	2-2½" diam. Damp. 1-2½" diam. Ductor	8800 lbs.	4-8"x9-6"	3 H. P. Press 1½ H. P. Feeder
Receding Auto Pile	18"	3 Form 2⅞" 7 Distributing 2½" 1 Distributing 2⅞" 1 Ductor 2½"	2-2½" diam. Damp. 1-2½" diam. Ductor	9300 lbs.	5-1"x9-6"	3 H. P. Press 1½ H. P. Feeder
Chain Auto Pile	13½"	2 Forms 2⅞" 3 Distrs. 1 Ductor 4 Vibrating Drums 1 Rider	2 Plate 2½" 1 Ductor 1½"	1700 lbs.	41x57½"	Drive ½ H. P. Pump ⅓ H. P.
Chain Auto Pile	14"	3 Form 2½" 6 Distrs. 2" 1 Ductor 2" 3 Drums 3 Riders	2 Plate 2¼" 1 Ductor 2¼"	3450 lbs.	49x72"	Drive 1½ H. P. Pump ½ H. P. variable speed control.
Chain Auto Pile	16"	4 Form 2½" 6 Distrs. 2" 3 Drums 1 Ductor 2" 3 Riders	2 Plate 2¼" 1 Ductor 2¼"	5800 lbs.	71½x90"	Drive 3 H. P. Pump 1 H. P. variable speed control.
Receding Auto Pile 4 sets patented spring grippers	27"	4 Form 2½" 1-7" Drum 3-3½" Drums 5 Distributors 2⅝" 1 Ink Ductor 2⅝" 5 Riders	2 Plate 2⅝" 1 Ductor 2⅝"	7000 lbs.	5'x8'	3 H. P. Press. 1 H. P. Blower.



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H. J. SCHULTZ CO.

231 INSTITUTE PL. CHICAGO, ILL.

YOUR MAN FRIDAY . . .

HERE HE IS — — —

AGE: 39. **NATIONALITY:** American. **EDUCATION:** Graduate Engineering College. **MARRIED:** Yes. **EMPLOYED:** Yes. **SALARY:** At Present, $5,000.00 A Year. **EXPERIENCE:** Twenty Years Specializing in offset lithography, complete, practical experience, covering sales, production, estimating and general management, also, complete letterpress training . . .

WRITE ME TODAY!

ADDRESS BOX 607, MODERN LITHOGRAPHY

New Kellog Folder

Kellogg Division, American Brake Shoe and Foundry Co., Rochester, N. Y., is distributing a folder describing its line of tank and tray coolers for photographic dark rooms. Among the items shown on the folder are the new Kellogg Junior tray cooler, designed for small dark rooms; the Kellogg tank cooler for color separation negatives and other highly priced film processings; the Kellogg Senior automatic tray cooler designed for large dark rooms; and the Cabinet tray cooler for storing bottles of solutions over-night and weekends. Copies of the folder are available on request.

•

Calls Attenion to "Old Jobs"

S. D. Warren Co., Boston, has just issued a little booklet entitled "Old Jobs Are Waiting To Be Done." Acknowledging the national emergency with which the United States is confronted as a result of developments abroad, the booklet published by Warren yet reflects that "as the increase in the scale of international catastrophe has dwarfed the apparent importance of normal tasks, the actual importance of those tasks has grown immeasurably." The copy then proceeds to outline some of these tasks, as: "The search for economies in manufacture; the need for useful products; qualities which are still susceptible to improvement; distribution of merchandise; and the efficient promotion of sales as a necessary part of the maintenance and extension of a business." The copy concludes with the thought that recognition of the desire of consumers for helpful, dependable information about merchandise is one of the "old jobs." Hence, the latter part of the booklet is devoted to presentation and explanation of one of the Warren Company's products.

•

New Merck Index

The Merck Index, a condensed and comprehensive encyclopedia of data and other information on the physical, chemical and medicinal properties of chemicals and drugs, has recently been published by Merck & Co., Rahway, N. J. Chemicals are listed under their common, scientific and trade names which aids in establishing the indentity and composition of chemicals with vague and misleading names. The medicinal as well as industrial application of most of the chemicals are explained. Five pages are devoted to indicators for pH determinations. This index, the first edition of which was published in 1889, is intended as an aid to the chemist, pharmacist, physician and photo-chemical technician. Many handy and useful tables are given: weights and measures and their equivalents, conversion tables, thermometric comparison chart, tables for making saturated and percentage solutions, etc. The 13 pages of antidotes for poisons would prove indispensable in any emergency. The wealth of material conveniently collected and bound in one volume makes this book a handy reference for the Graphic Arts worker.

•

"No Accidents" Calendar

New York Printers and Bookbinders Mutual Insurance Co., New York, has just issued a "No More Accidents" calendar for 1940 and 1941. Each month on the calendar is illustrated with examples of accidents in the graphic arts which could have been prevented, together with appropriate mottos. The calendar has been designed to hang in the shop. Copies of the calendar are available.

•

Champion Folder

Champion Paper & Fibre Co., Hamilton, Ohio, is distributing a folder demonstrating the reproduction qualities of its Champion All-Purpose Litho Paper for varnishing, metallic and gloss inks. The front and back covers of the folders, carrying a halftone in black and white, are spirit-varnished to show how this treatment looks on solid ink areas and on white paper. Inside the folder the same halftone illustration is reproduced surrounded by printings of gloss ink on one side and metallic ink on the other showing how these inks print on Champion All-Purpose Litho. Copies available.

•

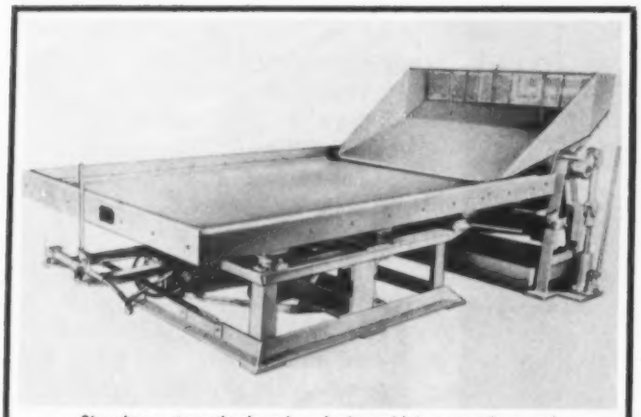
New Rouse Catalog Available

H. B. Rouse & Co., Chicago, manufacturers of tools for printers and lithographers, have just distributed a new catalog of their latest labor-saving devices and equipment. A complete description of the newest products in the Rouse line, as well as all the old standard products are given in the catalog. Copies are available.

•

Publish New Pricing Plan

The New Orleans Graphic Arts Association, New Orleans, has just published "A Modern Plan For Pricing Printing," the outcome of many years of study and research of printing production. The pricing plan has been



Showing automatic dumping device which saves time and eliminates kinking of plates when removed.

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The Only Gearless, Single Eccentric

GRAINER

ONLY WITH ZENITH — exclusive features that have made ZENITH GRAINERS standard in the trade: SINGLE, GEARLESS ECCENTRIC reduces noise to a purr—self-aligning ball bearings cut wear 80%. DYNAMICALLY BALANCED FRAME — absorbs the vibration and makes bolting down unnecessary. HYDRAULIC MARBLE LIFT—a mechanical improvement in handling graining marbles; tub tilted while machine is in operation — keeps marbles in motion preventing spots, scratches, etc. Operating speed range of 150 to 225 R.P.M.; economical 1½ H.P. Motor. Simple Lubrication.

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Standard makes of offset presses Rebuilt from the floor up, all worn parts replaced with new. Presses delivered, guaranteed equal to new, complete with Electrical Equipment. The prices mean a great saving to you in every way.

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No muss, no fuss, no mixing. From can to fountain, and you're ready to go.

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compiled with the aid of many New Orleans printers and has been tried and tested and, we are informed, been found thoroughly sound. The new pricing plan has not been published for the purpose of selling it at a profit, it is announced, but rather with the hope that it will be made widely available to printers and lithographers everywhere. Copies may be obtained at the actual cost of printing, it is announced. Those interested may obtain further information by writing Frank A. Berger, executive secretary, New Orleans Graphic Arts Association, 200 Balter Building, New Orleans.

•

Paper Recounts Traung Story

The story of Stecher-Traung Lithograph Corp., filled with reminiscences of the Traung twins, Louis and his late brother Charles, is told in a recent issue of the San Francisco Daily News by Addison N. Clark, feature writer. It describes how the company was founded, and how it grew into a five million dollar San Francisco enterprise. Many personal anecdotes of the twin brother founders serve as a background.

•

Correction:

In a recent issue announcing availability of a folder entitled "Cause and Cure of Gear Streaks," by C. W. Latham, author of our monthly department on Offset Press Operation, the address was erroneously given as 6 Lafayette Avenue, New York. It should have been 6 Lafayette Avenue, Brooklyn. Those wishing a copy of Mr. Latham's folder, which describes a method of eliminating variations in cylinder surfaces without dismantling the press or loss of production, are advised to write to him at the Brooklyn address.

•

Publish Lecture Course

Advertising Women of New York, Inc., has announced the publication of "Advertising—First Aid to Business", a 237-page, 8½" x 11", paper-bound volume comprising the transcript of the lectures delivered at the Survey-of-Advertising Course sponsored by that group during a six months' period of 1939-40. Twenty chapters are included by speakers who are considered outstanding practitioners in their respective fields. Actual material used in the planning and execution of advertising campaigns is described, and many specific facts and details from the experiences of the writers are given. The Table of Contents includes:

"Advertising—Relation to the American Scene", by Clinton Roy Dickinson; "Market Research", by Professor James Drury; "Advertising Agencies", by Frederick Gamble; "Copy and Visualization", by Mary Shaunty; "Advertising Agency Production Departments", by George Dearnley; "Creative Designing", by Guy Gaylor Clark; "Typographic Layout & Type Composition", by Harry L. Gage; "Graphic Arts Reproduction", by William R. Winship; "Newspapers", by Edith Ellsworth; "Magazines", by Dr. R. E. Rindfusz; "Radio", by E. P. H. James; "Publicity and Public Relations", by Merle Crowell; "Outdoor Advertising", by Cy Coggin; "Direct Mail", by L. Rohe Walter; "Commercial Pictures", by Fred H. Fidler; "The Story of Packaging", by Charles A. Breskin; "Planning the Advertising Campaign", by Carl Williams; "Legislation in Advertising", by Allen E. Backman; "Advertising Education — The Consumer", by Mrs. William E. Fribley; and "Advertising as a Career", by Dorothy Dignam.

"Advertising—First Aid to Business" was compiled by Dorothea C. Brennan, educational committee chairman of the Advertising Women of New York, and educational director of the Lithographers National Association, Price $2.50.

•

Coxhead Folder With Specimens

Ralph C. Coxhead Corp., New York, manufacturer of the Varityper, is distributing a folder of samples demonstrating how two lithographing firms, Bulman Bros., Ltd. of Winnepeg, Canada, and Anderson Press of Reading, Pa., are using the Varityper to sell offset. Included with the direct-mail specimens used by the two lithographing firms, is a folder describing the Varityper Secretarial Model illustrated with examples of what can be accomplished with the Varityper lithographically.

•

Studies Labor Productivity

The Brookings Institution, Washington, has just published "Productivity, Wages and National Income," a pamphlet which is a digest of a study to determine the extent to which man-hour productivity has increased in the last twenty years and how the resulting gains have been divided among labor, capital and the general public. Results of a report on the relation of increasing man-hour productivity to employment are also given. Copies are available.

•

Offers Course in Photography

The School of Modern Photography in New York announces an extensive course in professional photography under the direction of Victor Keppler, well-known advertising photographer, this fall. Elbert Ludlam, frequent contributor to these pages is also numbered among the instructors. Those interested may obtain further details by writing MODERN LITHOGRAPHY.

•

Marcus & Co. Move

Marcus & Co., printers and lithographers, formerly at 1308 Arch Street, Philadelphia, have moved to the northwest corner of Broad and Wallace Streets. The new quarters provide 20,000 square feet of floor space. Jerome M. Marcus is owner of the company and William J. Stevens is production manager.

•

Tauber Celebrates 30th Year

Tauber Book Bindery, New York, celebrated its 30th anniversary last month. The firm was founded in 1910 by Rudolph Tauber, head of the company. Other members of the firm are Sheldon Tauber, sales manager, and Hyman Schwartz, production chief. Two years ago, in order to supply the trade with an economical and colorful mechanical binding, Rudolph Tauber invented the now well-known Tauber Tube binding, which consists of individual plastic tubes which require no special machinery for insertion.

•

Northern Lithographing Co., Chicago, formerly at 1250 West Van Buren St., has moved to 600 West Jackson Boulevard in that city.

•

John W. Steinman, president of Deluxe Offset and Engraving Co., Cincinnati, has been reelected president of the Civitan Club of Cincinnati.

•

Thomas F. Hawthorne, sales manager, Western Lithograph Co., Los Angeles, has been elected a director of the Advertising Club of Los Angeles.

Speed Up
the production of Photographic Masters

with the ELECTROMATIC
All-electric Carbon Ribbon Writing Machine

Strong, clear type impressions for photographic work are obtained at electric typing speed on the Electromatic All-electric Carbon Ribbon Writing Machine. The entire keyboard and carriage return of this machine are electrically powered and controlled by a feather-light touch. Type bars are provided with the exact amount of power for ideal printing—regardless of the pressure on the keys.

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We Will Be Pleased to Send Samples of These Specialties to the Trade.

OKAY DEVELOPING INK
A time tested material with every quality a developing ink should have — also made for deep etch plates.

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An excellent opaque for paper films and glass, will not chip or crack, and dries rapidly.

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OKAY OPAQUE
The finest negative opaque on the market — consistency and satisfaction assured.

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A water soluble opaque for masking on celluloid sheets; smooth flowing and non-sticking in humid weather. One of our most notable developments.

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Litho and Printing Inks, Compounds, Etc.

Bernstein With Roosen

I. M. Bernstein, formerly chief chemist for the Southern Division of International Printing Ink Company, at Cincinnati, has joined H. D. Roosen Company, Brooklyn, in a similar capacity. One of his first activities will be to supervise equipment of a new laboratory for development work. Mr. Bernstein has had a broad experience in the printing ink field over a long period of years. He was with Standard Printing Ink Company before this company was taken over by IPI and had formerly been connected with Martin Driscoll and Company and Sigmund Ullman Company.

•

Champion Opens New Office

Champion Paper and Fibre Co., Hamilton, O., announces the opening of a new sales office in Atlanta, Ga. The new office is located at 1406 First National Bank Building, and will be in charge of W. D. Gillespie and W. B. Huger. Both Mr. Gillespie and Mr. Huger have been employed by Champion for several years. Mr. Gillespie is going to the new office from Canton, N. C., and Mr. Huger from the salesoffice in Philadelphia.

•

Lanston Installations

The Chicago office of Lanston Monotype Machine Co. reports the installation of an M-H photo-composing machine at Regensteiner Corp., in that city last month. At Omaha, K. B. Printing Co., it was also announced, added an M-H photo-composing machine, while C. P. Curran Co., St. Louis, bought a 24-inch Monotype camera.

•

Demonstrates Plant Operations

A series of demonstrations of how a modern offset plant operates is being held throughout the country under the auspices of American Type Founders, Elizabeth, N. J. Equipment shown includes an ATF-Webendorfer sheet-fed offset press, precision darkroom camera, and the full ATF line of offset plate-making equipment. Members of the company's Offset Division are in charge to answer inquiries.

The first of the demonstrations was held at the ATF branch in Washington, August 22 to 24. The dates and locations of the succeeding demonstrations so far scheduled are:

Sept. 12-14—
- ATF Boston Branch
- ATF New York Branch
- ATF Buffalo Branch
- ATF Cleveland Branch
- E. G. Ryan & Co., Chicago
- ATF San Francisco Branch
- ATF Dallas Branch

Sept. 26-28—
- ATF Pittsburgh Branch
- ATF Cincinnati Branch
- ATF Minneapolis Branch
- ATF Los Angeles Branch

Oct. 10-12—
- ATF Philadelphia Branch
- ATF Baltimore Branch
- ATF Seattle Branch

Oct. 24-26—
- ATF Atlanta Branch
- ATF Denver Branch

Barney Donohue, Sinclair & Carroll ink representative, Frank Yerby, T. J. Cardoza Bindery Co., and Frank W. Smith, Harry W. Britnall Machinery Co., members of the entertainment committee of the 21st Annual Convention of the International Association of Printing House Craftsmen, held at San Francisco last month. Over 1000 delegates attended the meeting. Some 200 lithographers were on hand for the Offset Lithography clinic, which was a feature of the program. They heard Lon Ganglmayer, California Ink Co., speak on "Platemaking and Photography;" Harry Porter, Harris-Seybold Potter Co., on "Developments in Offset Presses;" and Andrew J. George, Schmidt Lithograph Co., on "Research in Offset Lithography." Frank McCaffrey, (inset) of Seattle, was elected president of the Craftsmen, succeeding John M. Callahan.

•

Wheelwright Issues Samples

Wheelwright Paper Co., Philadelphia, has just distributed a portfolio demonstrating uses of its Made-(W)right Index Bristols. The portfolio is filled with samples of the company's line of bristols for advertising printing. Included are case history descriptions of how each sample was used. Exhibits of Made-(W)right Index used for file forms, cards of all kinds, menus, tickets, tags and all direct mail and business uses, reproduced by both letterpress and lithography, are contained in the portfolio. Shown also are several practical suggestions designed to enable the printer to develop new business.

•

Students Hear Peterson

E. E. Peterson, director of research and marketing service, Forbes Lithograph Co., Boston, addressed a group of seniors at the Boston University College of Business Administration last month on packaging. Mr. Peterson talked about the functions of the package as a sales and advertising medium, describing how packages should be designed in order to meet the advertising need.

•

Lithos Angling Guide

National Process Co., New York, has just lithographed "A Fisherman's Guide", which was prepared especially for Richfield Oil Co. by John Alden Knight, instructor in angling at Columbia University. The folder, which is in three colors, gives the best fishing days of the season determined by scientific observation as well as barometric trends.

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Paraformaldehyde U. S. P.
Sodium Carbonate Photo Pure
National Photographic Carbons
Sodium Sulphite Anhydrous Photo

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N.A.P.L. Meets in Chicago

(*from page* 30)

his company, with reasons for the use of each, together with an analysis of returns. He will also display typical samples of advertising literature now being used by members of the association. These will be displayed for all to inspect at leisure during the remainder of the convention. Mr. Krueger's talk, plus the exhibition, will undoubtedly stimulate many photo-lithographers to new advertising efforts.

Archie Fay, sales manager, National Process Co., New York, will follow up Mr. Krueger with a talk on "Charging for Over-runs." Lately the Association of National Advertisers has circulated a questionnaire among advertisers, printers and lithographers on this very question. Whether or not any of the A.F. of A.'s findings will be incorporated in Mr. Fay's talk, evidence points to the fact that the problem of over-runs is very much in the buyer's and purchaser's mind at this time. The delicate question of customer relations as it is affected by the over-run problem will be dealt with by Mr. Fay, who in his long experience in the graphic arts industry has served on both sides of the fence, having been both buyer and purchaser of printing. The second half of Mr. Fay's talk will be devoted to round-table discussions on advertising and selling problems in general. This part of the program is, of course, open to comments from the floor.

A series of clinics on platemaking conducted by the Chicago School of Printing and Lithography, with the use of its very complete platemaking department facilities, will close the formal program for the first day of the convention. The clinics will be open to all registered guests. They will be held under the guidance of Mrs. I. H. Sayre, considered one of the best informed and practical platemaking authorities in the industry. The platemaking clinics are to be held over a period of three days, with one day each devoted to albumin and deep-etch platemaking, dot-etching and, color separation.

The second day of the convention, on Friday, will be opened by William Arthur Clark, C.P.A., of Philadelphia, who will explain the Economic Hourly Costs and Production Standards recently adopted by the N.A.P.L. Mr. Clark has worked up the standards, with the cooperation and help of the photo-lithographing industry, based upon actual operating conditions found in representative photo-lithographic shops. Copies of the Production Standards will be distributed at the close of the meeting to all members of the Association. They are also available to non-members at $10 a set.

A talk on "Wash-Up Equipment and Ink Agitators" by William C. Gegenheimer, William C. Gegenheimer, Inc., Brooklyn, will follow the presentation by Mr. Clark. Mr. Gegenheimer has compiled a report which is said to show a marked saving in production costs, and an improvement in quality by those photo-lithographic establishments which have made ink agitating and wash-up equipment a part of their standard operating facilities. Summerfield Eney, well-known representative of Champion Paper and Fibre Co., Hamilton, Ohio, will follow Mr. Gegenheimer with a talk on "Coated Paper for Offset."

FRIDAY afternoon's session will get under way with a discussion of "Lithographic Shop Procedure" by Donald Nicholson, production manager of the Ronalds Co., Ltd., Montreal, Canada. Author of a book on this subject soon to be published, Mr. Nicholson will report on a series of studies he has undertaken in an effort to standardize on darkroom procedure, platemaking and color correction, according to a particular plant's operating capacity.

William Arthur Clark, C.P.A., will again address the convention, following Mr. Nicholson, with a follow-up talk on the N.A.P.L.'s Economic Hourly Cost Production Standards. Feeling that the photo-lithographers should have had some time to digest the standards distributed during the morning, Mr. Clark will endeavor in his follow-up talk to answer all questions relating thereto. He will explain to the photo-lithographers how the new standards may be used and incorporated into the operating procedure of their company. Undoubtedly Mr. Clark's interpretation of the standards will provoke many questions from the floor on production and management. Therefore, following it, A. G. McCormick, McCormick-Armstrong Co., Wichita, Kansas, has consented to preside over a round-table discussion.

Again at the close of the speech-making part of the Friday afternoon session, the Chicago School of Printing and Lithography will hold a clinic on platemaking. On the evening of the same day, the N.A.P.L. will hold its annual dinner and banquet. No speeches are promised at this event, therefore, the photo-lithographers, their friends and guests will be free for an evening of festivity. Dancing and entertainment are features of the program.

The N.A.P.L. meeting will be climaxed on Saturday morning with the traditional Share-Your-Knowledge program led, as always by a group of experts. William Garretson, chief chemist of Sinclair & Valentine Co., will speak on the "Simplified Chemistry of Printing Inks" and John McMaster, Eastman Kodak Co., will talk on "Light Sensitive Materials Used in Photo-Lithography." Following these two addresses, informal talks will be given by Summerfield Eney, Champion Paper & Fibre Co.; William C. Gegenheimer of William C. Gegenheimer, Inc.; Donald Nicholson of Ronalds Co., Ltd.; Robert W. Reed of the Lithographic Technical Foundation; and I. H. Sayre of the Chicago School of Printing and Lithography. Questions will be asked these speakers from the floor with Major W. W. Kirby of Kirby Lithographing Co., Washington, D. C., presiding.

The Share-Your-Knowledge meeting is scheduled to begin at 9 A. M. Saturday and last until 12 noon. The convention will then adjourn for luncheon and a talk by Harry Porter of Harris-Seybold-Potter Co., Cleveland, on "Quality in Lithography". The meeting will re-convene at 3 P. M. for the final talk of the sessions, an address by I. M. Thorner, Agfa Ansco Corp. on "The One-Stop Halftone Method." Mr. Thorner will illustrate his talk with actual demonstrations.

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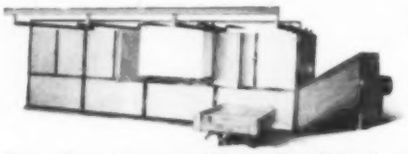

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Offset Press Operation

(*from page* 67)

loosened until the plate has contacted the blanket on the test revolution.

The object now is to turn the blanket cylinder a specified surface distance and determine whether the plate cylinder turned a greater or lesser surface distance, and this may be determined by marks on the blanket cylinder bearer and marks on the plate cylinder bearer, measured and compared.

Packing for Test

The cylinders may be packed to any ratio you wish to choose for the first test, but whatever ratio is chosen it is essential to procure an accurate four point squeeze pressure. A good suggestion regarding this is to pack the blanket to just bearer height, and then pack the plate to just four one-thousandths over the bearer. It is essential to know the exact cylinder under cuts, and to "mike" the plate, blanket and packing carefully. If upon measuring the distance between marks, it is found that the plate cylinder has turned farther than the blanket cylinder, packing should be taken out from under the blanket and put under the plate.

Putting the Marks on Bearers

In order to mark the bearers accurately, it is necessary to clamp a straight-edge firmly to the frame of the press so that it crosses the bearer at right angles and is in close proximity to it, so that a fine line may be scribed upon the surface of the bearers. Another straight-edge must be used at the same time and in the same manner for the bearer of the other cylinder. The first marks on both cylinders should be made just after the blanket has contacted the plate on the test revolution, and the second marks should be made just before the blanket breaks contact with the plate. The marks should then be measured.

To measure the distance between the marks, either the short way around the cylinder or the long way may be used. A thin steel tape held in position with scotch tape will be found suitable if the markings are fine and clear. No calibration need be used for the bending of the tape, as they are comparative measurements only, and the error will be the same in both instances. Accuracy of marks and reading them is the important thing. The first marks must be carefully scribed after the press pressure has been applied and the press rotated until the blanket has just firmly contacted the plate. Care must be taken that the straight-edges do not move or bend after the mark has been made. The press must now be turned smoothly and with out jerks to a point just before where the blanket broke contact with the plate, and another mark scribed upon each bearer, holding the scriber at the same angle as in making the first marks. The best way to turn the press during the test is to give long steady pulls on the belt to avoid jerks.

After several tests and changes in packing, the bearer marks should coincide showing that the bearer surfaces and the plate and blanket surfaces are traveling at the same contact speed when under squeeze pressure of four one-thousandths. If it is found that four points squeeze is not enough to make the plate print throughout the entire surface, the cylinders or blanket are probably faulty and should be repaired rather than to increase the squeeze pressure, as this would again unbalance the surface speeds.

Theoretically the impression cylinder should now be built up to the same diameter as the plate cylinder, but even if it isn't, the press is close to a proper setting. On some of the older presses without undercut bearers on the impression cylinder, this packing method cannot be used unless a packer is put on the body of this cylinder because the underpacked blanket will not contact the impression cylinder.

•

Technical News

(*from page* 69)

ciable quantity of bichromate it might become sufficiently sensitive to light so that an image could be printed down. Of course the parchment surface could be coated with a sensitized albumin coating and a print made in this way but it is questionable if the smooth surface would afford the albumin sufficient grip to make a satisfactory printing plate.

Merchandising

(*from page* 59)

and which you were reminded of by the billboard poster—but you are expecting some folks in to play bridge, or you've promised to take your family to the movies, or you have some homework to do—so you don't go out and buy the product that is advertised.

But—a few days later, you drop into a convenient drug store to have a prescription filled, to get a tube of shaving cream, or some razor blades, or cigarettes, or whatever you drop into a drug store for—and your eye spots a counter or window display of the very product you have been reading and thinking about—and planning to buy one of these days. What happens? You *buy* the product—and a sale is consummated for the benefit of all concerned.

The very existence of the wholesaler is dependent upon the steady flow through his organization of products made by established and reputable concerns—products which move from the producer to the wholesaler, to the retailer, and to the ultimate consumer—because the manufacturers invest their money in advertising to create consumer acceptance and demand for those products.

Many retailers have for years depended solely on the manufacturers advertising to do their selling for them. They know by experience that advertising sold goods for them, but they too often don't realize that advertising *plus* merchandising is the secret to volume sales. They fail to realize that while advertising brings people to products, it requires merchandising to bring products to people. I mention this again to impress upon you the all-important fact that the focal point of advertising and selling efforts is the retail store. Advertising can send people to the retail store with the desire to buy—but unless the product is available—and is brought to the potential customer's attention through proper merchandising methods, the result is a switch to some other product, or a lost sale for the retailer as well as for the manufacturer of the advertised product.

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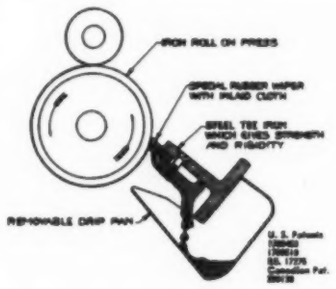

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INTERNATIONAL PRESS CLEANER & MFG. CO.

112 Hamilton Ave.

Cleveland, O.

Some Notes on Platemaking

(*from page* 46)

deep etch developing solution or a solution of calcium chloride (38 to 40 degrees Baume) containing a small amount of lactic acid or hydrochloric acid. The plate is washed thereafter with water-free alcohol until all traces of the developing solution are removed, a plate base applied and dried, followed by extra heavy developing ink. The plates are developed under running water in the same manner as a deep etched plate and gummed up. No etch is needed unless the plate is tooled with snake-slip inasmuch as the bichromated gum coating produces a surface insensitive to ink in the non-printing areas.

Since an image put down in this way has no underlayer of albumin to become swollen, the plates have a longer life and print with sharpness comparable to deep etched plates. When no enlargements or reductions are taken on the original copy, the time and expense of making a negative is saved. Many jobs may be transferred from letterpress to offset in this way, including color process plates. To sharpen an image it is only necessary to over-expose the plate.

•

Education of a Printer

(*from page* 55)

had considered the necessity of a method for analyzing production costs. We visited a number of these plants, and inquired of many others, but we were unable to find a cost system which we felt would give an accurate picture of our operations, and one which would insure a profit if closely followed.

Offset, like letterpress printing, is a highly competitive field. If a firm is to stay in business its product must bring in a margin of profit, however small, in direct ratio to the investment involved. The administrative personnel must be familiar with the operating costs of each department and, in our opinion, most plants have certain problems and costs not to be found in others.

So we finally decided on a unit cost system, at various hourly rates, depending on the equipment and type of work involved, with a fixed charge for both the large and small plates. This fixed charge covered the actual printing and developing of the plate, as well as labor and materials. A fixed rate per square inch for film used was placed on the cost sheet and charged as stock used. This rate was also designed to cover chemicals used in developing and fixing the negative. Since installing it the accuracy of our cost system has been checked every month with a comprehensive study and analysis of each job. It has been necessary to revise the rates on chargeable time once or twice since the system was adopted.

As we have gone along in the business we have found it necessary to become thoroughly familiar with every phase of the offset process. The department, contrary to what the ads say, failed to operate itself. Supervision was needed. We found, too, that it was very necessary for us to have an artist and lay-out man. We employed a young commercial artist, who is doing a swell job and is well on the road to making a name for himself in this particular field. As our sales volume grew, we found that creative work on folders, booklets, broadsides and stationery was the most profitable. The business was also easier obtained. We are just beginning to do color work in any volume to speak of, and have also recently added deep-etch for finer work.

To take care of the lower-priced class of work, we recently installed a Vari-Typer composing machine. This machine fits into our scheme very nicely for handling certain catalog, price list and office-form work. We have also just contracted for the publication of one or two house organs, with the text being composed on this machine. While work of this nature does not always satisfy the artistic impulse of the producer, it has a definite place and helps keep the crew busy on work that might have to be passed up, or produced at a very low margin of profit.

We have found it necessary to add a non-offset gun for the Harris press, and additional equipment is planned for our art department. The small quarters originally set aside for the offset department have become inadequate, and an expansion program now under way in our building will more than triple the floor space now used. We have come to believe offset has a very definite place alongside letterpress.

It is not the universal panacea some proclaim it to be, however. The printer who recognizes the limitations of each will go farthest.

Too many enter the offset field half-cocked. By far the most important thing to do before making a decision is to make a careful study of the possibilities of offset and its adaptability in relation to your particular business. Also, plenty of capital should be a prerequisite, and the patience and faith of Job. You've got to be able to take it, both mentally and financially before a reasonable return on your investment will be realized.

Too much importance cannot be attached to the need for a workable cost system. By all means establish one immediately! There are so many items of cost in the numerous chemicals and materials necessary that unless each phase of the operation is analyzed and held in control you will not know until it is too late whether you're making money or losing it.

Adopt the sales policy of meting out to your offset department only work which is adapted to the process. Both letterpress and offset have a place in the modern printing establishment. Decide which jobs are best for each. In your production department place there only men who have had experience in the production of offset printing. Don't attempt to operate an offset department with tyros. It won't work and you're just asking for trouble.

We're mighty proud of our offset department even though it has given us lots of headaches. Today, three years after its installation, it will turn out a volume of close to $50,000, and we expect to realize a neat little profit. Next year the volume and the profit should be even greater—but we've thrown away those rose-colored glasses!

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BOOK DEPARTMENT

MODERN LITHOGRAPHY

254 W. 31st St. NEW YORK, N. Y.

Photolitho Progress

(*from page* 34)

Photocomposing machines occupied the attention of A. T. Koppe (U.S.P. 2,174,726—2,203,094) and a German inventor, Paul Nickelsberg (U.S.P. 2,200,365), while the competitor of the composing machine, the hand transfer press, is the subject of a patent (U.S.P. 2,178,259), issued to Simon F. Kjell.

Zinc and aluminum, long established as litho printing surfaces, now face newer materials in the form of monel metal and stainless steel plates. Concerning the latter, W. N. Misuraca prefers Allegheny Metal 18-8, Type 302, known as "Chromium-Nickel Stainless Steel."

Other litho surfaces recently suggested are those of Francis L. Simons (U.S.P. 2,156,100), the bi-metallic surface of Buckelman & Elfers (B.P. 446,775), and the patented (B.P. 475,588) plate used in the *Alkuprint* process (*Process Engraver's Monthly*, 46, June, 1939, 183), the last-named involving a method for producing relief plates for offset printing.

There is little new to record in the production of deep etch plates, though a process has been introduced in Germany, *Ei Des Co*, embracing the use of a special sensitizing solution, with after treatment of the exposed image divided into three stages: predevelopment, secondary development and deep etching of the plate. An electrolytic process of deep etch platemaking from negatives has been patented (F.P. 831,185) by F. Hugentobler; as is common with methods of this kind, the procedure is a rather complicated one.

Production of litho pressplate by projection is gaining new impetus, what with high-amperage arc lamps giving way to some extent to water-cooled mercury arcs, which do not generate as much heat and are more economical as to current consumption. In an effort to reduce the exposure time for projected images, the Harold M. Pitman Company has introduced a new sensitizer for zinc plates, the sensitizer said to possess a speed of about 50% higher than that of offset film or negative paper.

Entry of the offset press into newspaper printing is one of the current features of journalism, the most recent venture on a large scale being the Hartford (Conn.) *Newsdaily*, issued in tabloid form, and printed on a special Webendorfer press. A recent review of the situation (MODERN LITHOGRAPHY, 8, May, 1940, 55-59, 85) lists some 20 American papers now being printed by offset lithography.

The Lithographic Technical Foundation has come to the aid of the pressman by its invention (U.S.P. 2,101,322) of the *Inkometer*, an instrument for measuring the consistency of lithographic and printing inks. Details on the instrument are furnished in a special bulletin (*The Inkometer*), issued by the organization in question.

The principle of fluorescense has not only been applied to lighting, but it has also been extended to printing inks. A process for making fluorescent inks has been patented (U.S.P. 2,152,856) by Joseph L. Switzer, the process consisting essentially of mixing a fluorescent dye with a colorless resin and a suitable solvent, to which mixture is added a drying oil and a certain percentage of aluminum hydroxid. As might be expected, fluorescent inks have their property enhanced by subjection to ultra-violet rays, and are now being used in a number of ways, especially for certain types of display and poster illustrations.

•

Farwest Says It With Jobs

"Who says there are no jobs?" is the challenging question asked in a folder recently issued by Farwest Lithograph & Printing Co., Seattle, Wash., introducing to the trade three new salesmen, class of '40, which it recently took on. "We're saying it with jobs at Farwest," reads the copy and goes on to ask, "Who says business doesn't offer opportunity for college graduates? Farwest disproves the statement by putting three young fellows — graduates of the 1940 journalism and advertising class of the University of Washington — on its sales staff. They are anxious to tell you what this modern printing and lithographing plant can do for your business. And now may we present" (here the copy jumps to the inside) "three men on a beat" (which is carried directly underneath the photos of the three junior salesmen, along with brief biographies of each).

•

Harris Representative Marries

Al W. Johnston, western representative for Harris-Seybold-Potter Co. out of the Chicago district office, with headquarters in St. Louis, was married July 20 to Miss Frances Henrion, of Wichita, Kansas. Mr. Johnston, well known in the western printing trades, came to Harris from the Pacific coast several years ago where he formerly was associated with the State printing plant in Sacramento, Calif.

•

New Stunt by Rand Avery

Rand Avery Printing Co., Boston, recently initiated a unique promotional stunt by mailing its friends a block of tickets which entitled them to a round-trip through Rand Avery's plant. "Good for one round-trip through Rand Avery's plant via the scenic route to all departments of this modern printing establishment," read the tickets. There was a ticket for each department. For example, the one which entitled the visitor to inspect the offset department read "This ticket good for a trip through the offset department where you will see some of the newest offset equipment in New England—large color presses capable of doing outstanding work on any offset job." The last stub was a rain check. It read "If you can't possibly make the trip but want to see the type of printing we do in this modern plant, simply sign your name and telephone number on this stub and send it back to us."

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Announces New Service

Photochrom, Chicago, announces a carbro quality print service said to reproduce Kodachrome's full spectral and tonal range at an economical price. The new service has been established to provide clients with lower-priced prints for mailings, and for salesmen's use. Photochrom is the firm which recently introduced the Chromura print service to facilitate plate making from Kodachrome.

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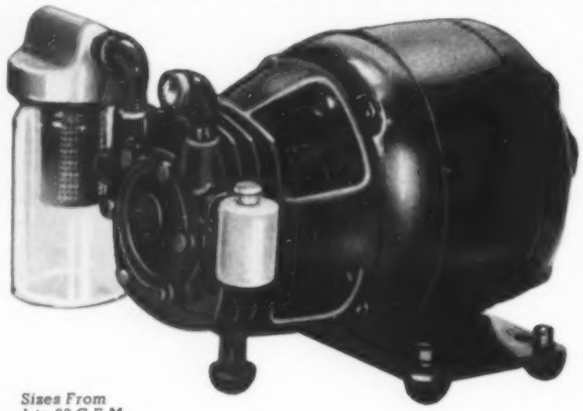

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LITHOGRAPHIC ABSTRACTS

Abstracts of important current articles, patents, and books, compiled by the Research Department of the Lithographic Technical Foundation, Inc. These abstracts represent statements made by the authors of articles abstracted, and do not express the opinions of the abstractors or of the Research Department. Mimeographed lists have been prepared of (1) Periodicals Abstracted by the Department to Lithographic Research, and (2) Books of Interest to Lithographers. Either list may be obtained for six cents, or both for ten cents in coin or U. S. stamps. Address the Department of Lithographic Research, University of Cincinnati, Cincinnati, Ohio.

Photography and Color Correction

Color Reproduction Fundamentals. F. L. Wurzburg, Jr. *Journal of the Optical Society of America,* 30, No. 6, June 1940, p. 274. This is a review of the principles of the various additive and subtractive methods of color reproduction from both the objective and subjective standpoints. It is shown how the development of the sciences of colorimetry and spectrophotometry have recently contributed materially to a better understanding of the theoretical requirements which any truly accurate and automatic color process must fulfill. The simplification of the artist palette by the utilization of the principles of three-color mixture so long used in the processes of automatic color reproduction are explained.

Filters and Emulsions for Color Work. H. C. Colton. *Photo Technique,* 2, No. 7, July 1940, pp. 54-7. Selection of filters and emulsions having the proper spectral characteristics will do much to improve color-separation negatives. The author discusses practices which he has found desirable, and suggests several filter-emulsion combinations.

Electronic Timing Control. W. E. Gilson. *Photo Technique,* 2, No. 7, July 1940, pp. 28-30. A range in timing from 1/10 second to 1.4 minutes for controlling enlargers or other photographic equipment is possible with the all-electric control illustrated in this article. Cost of materials is about $16.00. The circuit has the following advantages: (1) it uses a voltage regulator tube to maintain a constant voltage in spite of line voltage variations, (2) a thyratron is used instead of an ordinary triode in the relay circuit, and (3) there is no error introduced by variations in the speed at which the pushbutton is released.

Color Process Methods. Anonymous. *Advertising and Publishing Production Yearbook,* 6, 1940, p. 49. This chart indicates the color reproduction and color correction procedure which is followed for six kinds of copy; hand creations, hand-colored photographs, black-and-white (for "fake color"), photographic color prints, transparencies, and direct-from-object photographs. The procedure for color correction is dependent upon the printing process involved, whether for photo-engraving, photo-lithography and offset, collotype, or rotogravure.

Method for the Production of Screen Negatives. A. C. Hansch and H. E. Hansch. *U. S. Patent* No. 2,204,080 (June 11, 1940). In the art of screen photography, a method of determining exposure values for the detail, highlight and middletone zones of an original which includes the use of detail, highlight and middletone lens stop openings, the middletone lens stop opening being twice the size of the detail stop opening and one-half the size of the highlight stop opening; ascertaining the tonal range of the original by comparing the darkest and lightest tones thereof with a gray scale calibrated in reflection density values and the exposure values proportionate to said density values; from the reflection density values of the darkest and lightest tones of the original and the respective sizes of the detail and highlight stop openings ascertaining the exposure values for the detail and highlight zones of the original; from the reflection density of the gray scale tone located centrally between the tones which correspond to the darkest and lightest tones of the original and the size of the middletone stop opening ascertaining the exposure value for the middletone zone; then exposing a light sensitive emulsion to the said original through the respective stop openings for exposure intervals ascertained from the said exposure values.

Color to be Separated by Electric Eye. *Photo-Engravers' Bulletin,* 29, p. 280, November 1939. (Taken from *Printing News.*) The Trenton Times expects at an early date to make use of an apparatus invented by T. T. Baker for the reproduction of colored news photographs by the offset process. Kodachrome or other transparencies are scanned on a rotating glass drum; the beam is divided, picked up by four photoelectric cells, amplified, the tone values corrected electrically, and the four corrected color-separations are recorded on a drum on the same shaft as the glass cylinder. (*Monthly Abstract Bulletin of Eastman Kodak Company,* 26, 1940, p. 274.)

Planographic Printing Surfaces and Plate Preparation

Printing Plate. A. R. Trist. *U. S. Patent* No. 2,203,849 (June 11, 1940). A method of treatment for printing surfaces comprising the electrolytic deposition of a layer of chromium with an unpolished absorbent matt surface activated to attract grease to said surface, and the application of a liquid mixture of tannic acid, sulphuric acid, nitric acid, water and a colloid to the nonprinting areas of said surface to passivate said areas to repel grease in the presence of moisture.

The Chemistry of Coating Solutions and Etches. E. Bruyning. MODERN LITHOGRAPHY, 8, No. 6, June 1940, pp. 43-5, 67. Hydrochloric acid is used as a counter-etch by most litho plants. Acetic acid is good if a wetting agent is added, and an alkali counter-etch has certain advantages.

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Pre-etching diminishes the too great affinity of the counter-etched plate for the coating solution. A coating solution consists of a colloidal solution properly sensitized with a sensitizing medium and held at some definite pH. An elementary explanation of the chemistry involved in colloidal solutions, sensitizing media, and pH is given; and the formulation of coating solutions from gum arabic, gelatin, albumin, casein, and various vegetable proteins is discussed. The addition of ammonia lengthens exposure, but permits coating solutions to be kept longer. The plate etch advocated by the Lithographic Technical Foundation is recommended. Formulas are included.

Wanted—A New Plate Coating. C. F. Geese. *National Lithographer,* 47, No. 7, July 1940, p. 40. Metal plates must be grained in order to carry moisture. The grain, however, distorts the roundness of the half-tone dot. Most blinded plates are caused by the soft grain becoming flattened or rubbed away by friction. Even in deep-etch plates, the nearest approach to perfection in the offset process today, the dots are still distorted. The development of a smooth precoating, capable of retaining moisture, to be applied over the grained surface, is suggested.

Equipment and Materials

Modern Printing Rollers (Book). E. F. Trotter. Walden, Sons & Mott, Inc., 41 Park Row, New York, N. Y. 1940. $.40. This book is a collection of articles written by E. F. Trotter and published in "Printing", April 1938 to December 1939. These articles comprise the results of a survey of roller problems in the industry, and are based on statements and findings of printers, lithographers, and roller and ink manufacturers. Chapters cover such subjects as wash-up and solvents, storage and costs, composition rollers, offset rollers, synthetic rollers, magazine press rollers, newspaper rubber rollers, and roller problems. (*Graphic Arts Monthly,* 12, No. 7, July 1940, p. 73.)

Paper and Ink

The Relation Between Sheet Strength and Fiber Surface Conditions. H. P. Dixon, Jr. *Paper Trade Journal,* 111, No. 3, July 18, 1940, pp. 29-36. The hydrophilic character of fiber surfaces is the predominant factor which causes fibers to bond and thus give strength to a sheet of paper. The hydrophilic character of unbeaten pulp fibers is increased by treating suspensions of bleached sulphite with locust bean gum, cellulose gel, and gelatin, and is reduced by treatment with Duponol WA (sodium lauryl sulphate). Handsheets of various apparent densities obtained by varying the wet pressing pressure were made and evaluated for strength properties. The strength of handsheets made from fibres treated with materials to change the hydrophilic nature was in the same order as the amount of water bound by the materials added. Wetting agents are either without effect or are detrimental to the strength of sheets made from treated pulp because the agents are less hydrophilic than the cellulose.

Paper Coating Pigments. A. E. Hughes and H. F. Roderick. *Paper Trade Journal,* 110, No. 26, June 27, 1940, pp. 83-6. Various paper coating pigments are discussed and the suitability of each pigment for specific purposes is outlined. A comparison of the paper coating properties of clay, lithopone, satin white, calcium carbonate, blanc fixe, and titanium dioxide is given in graphical form. The properties of coated papers prepared from pigment blends of calcium carbonate with clay, lithopone, satin white, blanc fixe, and titanium dioxide individually are discussed.

Instrumentation Studies. XXXVI. The Gurley-Hill S-P-S Tester. Institute of Paper Chemistry. *Paper Trade Journal,* 110, No. 23, June 6, 1940, pp. 27-33. The mechanical construction and operating procedure of the Gurley-Hill S-P-S tester have been studied. A number of printing and other related papers have been tested by means of the softness, porosity, and smoothness attachments of the Gurley-Hill S-P-S instrument and also by means of the Bekk smoothness tester, the Gurley R.D. smoothness tester, the Gurley densometer, and the Federal compressibility gage. For these samples, the Gurley-Hill S-P-S tester measured in a reproducible manner certain properties of paper similar to those measured by the Bekk smoothness tester and the Gurley densometer. However, poor correlation was found between S-P-S softness and Federal compressibility and between S-P-S smoothness and Gurley R.D. smoothness.

The Place of Natural Resins in Printing Ink Technology. J. L. Curtis and C. L. Mantell. *American Ink Maker,* 18, No. 6, June 1940, pp. 20-22. The use of resins in specialty inks, gloss inks, overprint varnishes, and spirit varnishes is discussed. The fast drying of inks demanded by high press speeds is now accomplished by (1) contact with some setting medium, and (2) application of heat. The increasing use of heat-set inks opens a large field for resin application; Dammar, Batu, and Pale East India are suitable. Inclusion of resins in printing inks which dry by oxidation tends to make formulation and the necessary control of tack, flow, and drying time difficult. Alky resin varnishes are used in tin lithography, Dammar in the paint industry, and Dammar, the copals, and Batu in gravure.

Dimensional Changes in Paper. H. W. Bialkowsky and T. R. Probst. *Paper Trade Journal* 111, No. 2, July 11, 1940, pp. 34-8. An apparatus is described which measures the dimensional changes of paper with relative humidity; accommodates 20 samples at once; is inexpensive to assemble; and is accurate. Another apparatus is described by which the dimensional changes of papers upon immersion can be measured. The normal bond papers change in dimensions about 0.6 per cent in the machine direction and 1.6 per cent in the cross direction, when the relative humidity varies from 95 to 15 per cent. The basis weight and furnish (if of long fibered stock) seem to have little effect on the dimensional changes. The machine and cross directions change about the same amount when the relative humidity is lowered from 50 to 15 per cent; while if the relative humidity is increased from 50 to 95 per cent the cross direction expands about 7 times as much as the machine direction. The dimensional changes vary across the width of the machine. There is no good correlation between

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dimensional changes caused by varying the relative humidity and the expansion incurred by actual wetting of the sheet.

General

Dampening Hints. O. Diehl. *Lithographers' Journal,* 25, No. 4, July 1940, pp. 150, 169. To secure good dampening, it is important to keep the water pan and water roller free from the coating of slime caused by paper fluff, fountain etch, and substances in the ink. Seamless water roller covers are recommended. A few ounces of glycerin in the fountain water will aid dampening on humid days.

Basic Offset Facts. No. 3. Essential Supplies Listed. Anonymous. *Printing,* 64, No. 7, July 1940, pp. 48, 50. Lists of the chemicals, camera and plate-making supplies, and offset pressroom supplies necessary to the operation of a small complete litho plant are presented. Approximate prices of all items are given.

Lithographing Books. L. June. *Advertising and Publishing Production Yearbook,* 6, 1940, pp. 123-4. In lithographing children's books, the book should be planned for the offset process before the illustrations are made. Book size should be chosen with careful regard for economical layout on the large offset plate. The artist should make all illustrations for reproduction at the same reduction. In making textbooks, the plate work should be in permanent form so that additional plates can be made quickly and easily for long runs or reprints. For books with photographic illustrations, all photographic prints should be of the same tone value, and pictures should be sized to give as few reduction sizes as possible. Methods of transferring type to the printing plate are negative film, positive film, paper negatives, and cellophane or glassine proofs.

Screenless Lithography. W. N. Misuraca. *National Lithographer,* 47, No. 6, June 1940, p. 40. While screenless lithography does not yet give the desired results, Misuraca is convinced that the method has possibilities. A stainless steel plate grained approximately 0000, bearing a sensitized albumin base, is printed down from a continuous-tone negative. The tones are broken up into a granular formation that varies in size and structure with the type of grain on the plate. The finished prints are lacking in depth and tonal values.

Offset at the Trenton (N. J.) Times Plant. J. Gorse. *Printing Equipment Engineer,* 60, No. 3, June 1940, pp. 36-7. An interesting application of lithography to the newspaper field is the printing of the Trenton Times Sunday Picture Section by the offset process. The plant is complete in itself, all operations from plate graining to color separation being performed therein. The Hoe eight-color offset press, one of the largest ever used in this country, and the operations and equipment used in plate-making are described.

Offset Technique. J. Stark. *Inland Printer,* 105, No. 4, July 1940, pp. 31-2. A solution of ¼ ounce of sulfuric acid in 6 ounces of water, followed by scrubbing with gasoline and pumice, will clean steel rollers that are non-receptive to ink. The use of leather rollers and the tendency to scum attendant thereto are not necessary; composition or rubber rollers will do satisfactory work on any kind of job. Scumming is also caused by improper roller setting, failure to gum up the plate upon stopping the press, alum in paper sizing, and paper fluff. The dry offset process used by the Bureau of Engraving is described.

Miscellaneous

New Graphic Arts Developments. Anonymous. *Advertising and Publishing Production Yearbook,* 6, 1940, pp. 291-2, 294-6. A description in outline form of 175 new processes and products of interest to advertising production men, printers, and publishers.

Sixth Annual Advertising and Publishing Production Yearbook (Book). L. H. Joachim, Editor and Publisher. Colton Press, Inc., 114 East 32nd Street, New York, N. Y. 1940. $5.00. This comprehensive and well-illustrated volume contains sections on art and photography, engraving and electrotyping, book-making and binding, inks and paper, printing processes, production data, and typography. Practically every phase of the graphic arts is touched upon in excellent elementary and technical articles, complete charts and lists, and attractive reproductions.

Qualities of a Good Pressman. T. Makarius. *Lithographers' Journal,* 25, No. 4, July 1940, pp. 153, 169. Thoroughness is the most important quality of an offset pressman. Care in accurately making all press settings is necessary. Glazed rollers cause streaking, stripping, and many other troubles, and should be anticipated. Dampers should not be set too tightly. The following order should be followed in make-ready: put plate on, mix ink, prepare fountain water, ink up press, soak dampers, wash off plate, damp plate, and roll up with ink. When the first sheet has been run, it should be examined closely and all necessary adjustments made before running the next sheet. Uneven thickness of new blankets necessitating patching is caused by pulling the blanket too tight. Precautions in doctoring inks, use of driers, adjusting pressure, and washing up will help overcome blanket swelling.

Chemical Hygiene in Photomechanics. J. S. Mertle. *Graphic Arts Monthly,* 12, No. 6, June 1940, pp. 48, 50, 52, 54, 56; No. 7, July 1940, pp. 38, 40, 42-4. Causes, means of infection, and symptoms of the following occupational diseases common to photomechanical work are described: (1) metol poisoning. (2) lead poisoning, (3) bichromate poisoning, (4) nitric acid poisoning, (5) methanol (wood alcohol) poisoning, and (6) benzol-xylol poisoning.

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Chicago Art Center Moves

Art Center, Chicago, moved early this month to the Tower Town Building, 111 East Pearson St., where larger quarters will permit expansion of the services of the cooperative enterprise to Chicago advertising and printing industries. In the enlarged Graphic Arts Room increased space will be available for lithographers, printers, engravers, paper distributors and others to show their products, while the "Visual Sample File" will be maintained for continuous display of the current work of over 100 Chicago graphic arts craftsmen. Advertisers and art buyers will thus have easy access to facilities for choosing materials and processes for a complete printed job.

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NOTE: This is a classified list of the companies which advertise regularly in MODERN LITHOGRAPHY. It will aid you in locating advertisements of equipment, materials or services in which you are particularly interested. Refer to the Advertiser's Index on page 97 for page numbers. *"Say you saw it in Modern Lithography."*

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Ren R. Perry
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Repro-Art Machinery Co.
Rutherford Machinery Co., Div. General Printing Ink Corp.
The Senefelder Co., Inc.
Simplex Specialty Co., Inc. (Film Dryers)
E. T. Sullebarger Co.
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Godfrey Roller Co. (Dampening Rollers).
Harris-Seybold-Potter Co. (Presses)
Ideal Roller & Mfg. Co. (Rollers)
International Press Cleaners & Mfg. Co. (Press Cleaner)
International Printing Ink Div. of Interchemical Corp.
Kimble Electric Co. (Motors)
Harold M. Pitman Co.
Rapid Roller Co. (Rollers and Blankets)
The Rathbun & Bird Co., Inc. (Machinists)
Roberts & Porter, Inc.
Rutherford Machinery Co., Div. General Printing Ink Corp.
The Senefelder Co., Inc.
J. H. & G. B. Siebold, Inc.
Sinclair and Valentine Co. (Blankets)
Steelitho Plate Corp. (Blanket Cleaner, Steel Plates, etc.)
E. T. Sullebarger Co.
W. A. Taylor & Co., Inc. (pH Control for Fountain Solutions)
Vandercook & Sons, Inc. (Proofing Presses)
Vulcan Proofing Co. (Rollers and Blankets)
Zarkin Machine Co. (Rebuilt Presses-Machinists)

CLASSIFIED

All classified advertisements will be charged for at the rate of ten cents per word. $2.00 minimum, except those of individuals seeking employment, where the rate is five cents per word, $1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of Modern Lithography, 254 W. 31st St., New York. **Closing date: 1st of month.**

General Information Concerning Inventions and Patents:

A reference book for inventors and manufacturers, also containing sections on the registration of trademarks and copyrights, and a "Schedule of Government and Attorneys' Fees"—sent free on request. Simply ask for "booklet" and "fee schedule." Lancaster, Allwine & Rommel, Registered, Patent and Trade-Mark Attorneys, 402 Bowen Building, Washington, D. C.

•

Position Wanted:

Capable young man with seven years experience in small shop, wants position in Camera and Plate Departments. Will accept apprenticeship. Address Box #600.

•

For Sale:

Very complete photo offset plant, with one 41" x 55" Miehle Offset Press No. 57, Lanston Monotype-Huebner 20" x 24" Vertical Plate Overhead Motor Focusing Camera, Zeiss Apo-Tsaar Lens F8-18", 2 screens, lamps, with everything necessary for making perfect plates. Four years old, very little used, perfect condition. Located within 90 miles of center of population. Address Box #602.

•

Position Wanted:

Young, competent offset superintendent desires to make a change. Excellent production record for past eight years at large Eastern offset and type printing plant. Eighteen years experience in color-process and black and white lithography as cameraman, color correction artist, and platemaker. An artist of ability, has designed all types of printing, from direct-mail advertising to box wrappers and window displays. Will estimate cost of production and expedite work through all departments. Would like position in another modern plant, in any location, at a nominal salary. Address Box #606.

•

For Sale:

Power driven offset proving press, like new, printing size 35" x 84"—need floor space and willing to sacrifice. Wagner, 55 Park Ave., Hoboken, N. J.

•

For Sale:

Macbeth, Gelb, Pease, and Wohl printing and camera lamps single and double arc—30" x 40" vacuum printing frame with pump and motor—$90.00—24" Goerz Artar Lens $175. Singer Engineering Co., Camera and Lamp Experts, 242 Mott St., New York. WOrth 4-6088.

•

Wanted Offset Salesman:

A national organization is looking for a thoroughly experienced offset press and equipment salesman with the following qualifications:

An aggressive sales personality. A successful sales record in the offset field. Preferably with a thorough knowledge of the Metropolitan New York lithography and printing trades, 25 to 35 years of age, married, high school graduate or better.

This position offers a salary and commission and an unusual opportunity for the right man.

In your reply, which will be treated confidentially, give complete details as to your qualifications for this position and enclose an inexpensive recent photograph. Address Box #601.

•

Help Wanted:

Sales Manager for large lettershop with sizeable printing and offset departments. Present volume $500,000 a year. Must have complete knowledge of processes, be a capable copy writer and have a background of successful selling. Moderate starting salary with substantial advancement based on results. State fully in strict confidence past performances, references and starting salary desired. Address Box #599.

•

Situation Wanted:

Litho Artist, thoroughly acquainted with all phases of modern lithography, reproducing black and white work, labels, handle air brush,—knowledge of camera and plates. Address Box #603.

•

Situation Wanted:

Competent cameraman and platemaker accustomed to quality work, seeks connection with progressive concern. Has actual experience as shop foreman. Address Box #604.

•

Wanted:

Good man to take charge of offset department in Michigan. Must know Webendorfer, Multilith and plate making. Steady job. Address Box #605.

•

Position Wanted:

Young man 21, four months experience as cameraman, stripper and platemaker. Also four weeks of schooling in trade. Address Box #595.

•

Wanted:

17" x 22" proof press or smaller for lithographic color proving. Address Box #596.

•

Position as Foreman Wanted:

Plate-making and proving 25 years experience. Full details to any interested employer. Address Box #597.

•

Situation Wanted:

Graduate Chemist. Now employed by large litho house, desires broader opportunities. Thoroughly familar with photo lithographic methods from viewpoint of formulae, cost and production. Address Box #598.

•

Offset Plate Making Equipment for Sale:

Complete instruction, supplies, installation at your shop, in your city. Photo-Lith Sales, 5741A Division, Chicago.

"ASCO"
(RED)
OPAQUE
BLOCKS OUT WITH A SINGLE STROKE
Exceptional opacity permits close contact with print.

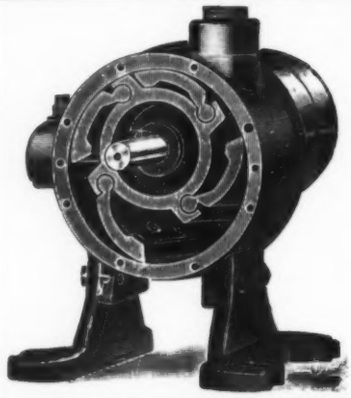
Ground extremely fine. Flows freely from brush, pen or airbrush. Leaves a thin smooth film that will not crack or chip off.
Test it yourself — Send for a sample.

ARTISTS SUPPLY COMPANY
7610 Decker Ave. Cleveland, Ohio
Ask your dealer for "Asco"

NEW & REMANUFACTURED LITHOGRAPHIC EQUIPMENT

THE M. L. ABRAMS COMPANY
"Your Supply House"
1639 Superior Ave. Cleveland, Ohio

THE RATHBUN & BIRD CO., Inc.
IN BUSINESS SINCE 1898
MACHINISTS
For LITHOGRAPHERS — PRINTERS
PLANTS MOVED REPAIR SERVICE
MACHINES RE-CONDITIONED
85 GRAND STREET NEW YORK, N. Y.
Telephone: CAnal 6-4145-4146



LEIMAN BROS. ROTARY
VACUUM —PUMPS—
Blowers, Gas Pumps, Air Motors
For operating Gas Burning Blowpipes
Furnaces
Oil Burners
Paper Feeders
Bottle Fillers
Gas Machines
Atomizing
Agitating Liquids
Vacuum Printing Frames
Printers, Bookbinders
Machinery
Efficient
Powerful NOISELESS
LEIMAN BROS.
23 Walker Street
NEW YORK CITY

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SUPREME OFFSET BLACK
That's just what we mean — a chance to find out why hundreds prefer Supreme Offset Black. It's a clean working, hard drying rich black with an absolute minimum of "greasing" on the plate.
Write for information on our
FREE TRIAL OFFER
E. J. KELLY COMPANY
1829 N. Pitcher St. Kalamazoo, Mich.

KORN'S
LITHOGRAPHIC CRAYONS
" CRAYON PAPER PENCILS
" STICK TUSCHE
" LIQUID TUSCHE
" RUBBING INK
" TRANSFER INK
AUTOGRAPHIC TRANSFER INK
MUSIC - PLATE TRANSFER INK
Manufactured by
WM. KORN, INC.
260 WEST STREET NEW YORK

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NEGATIVES & PLATES
FOR THE TRADE
NEGATIVES to 48" Halftone / 60" Line
PLATES Deep-etch / Albumen to 72 inches
Photo Composing or Vacuum Frame
Get in touch with us for your large size work.
MODERN LITHO PLATE CO.
406 WEST 31 ST. Tel. LA-4-3398 NEW YORK

RUSSELL *THE FASTEST SELLING FOLDERS IN AMERICA*

ERNEST

THE WORLD'S GREATEST FOLDING MACHINE VALUES **BAUM**

615 Chestnut St. Philadelphia, Pa.

Gives Souvenirs to Visitors

"My Trip Through Western Lithograph Co.," of Los Angeles, is the title of a small booklet published by that company recently for distribution to visitors. The booklet is written in the layman's language and gives an authoritative and brief history of the discovery and development of the lithographic process, based upon the article "From Stones to Rubber Blankets", which appeared in the September 1936 issue of *Oil Power*, Socony Vacuum House Organ. A section of the book is devoted to "The Art and Science of Modern Lithography," the various steps of which are discussed as in actual practice. The concluding paragraphs describe the variety of services available at Western Lithograph.

•

Analyzes Educational Survey

"An Analysis of Graphic Arts Education," a survey of the various activities which form different parts of the nation-wide educational program which was prepared for members of the Advertising Council on Graphic Arts Education by its chairman, Harry L. Gage, Merganthaler Linotype Co., has been published in booklet form. This analysis by Mr. Gage seeks to clarify the objectives of the various educational activities being carried on in the graphic arts industries. He discusses four broad divisions of graphic arts education, pointing out how each differs from the other in approach and purpose—exploratory courses, industrial arts training, vocational training and professional training. Copies are available.

•

Lobster Campaign Described

Details of a recently launched advertising and sales campaign by the Canadian lobster industry, which has been faced with a serious curtailment in distribution, are described in the August issue of *Moving Merchandise*, a Canadian publication. The article is illustrated with the type of display posters, window and store streamers, packages and labels being used in the promotion. The posters and streamers are being produced by Gorrie Advertising Service, Ltd., while the labels are being lithographed by Rolph-Clark-Stone, Ltd.

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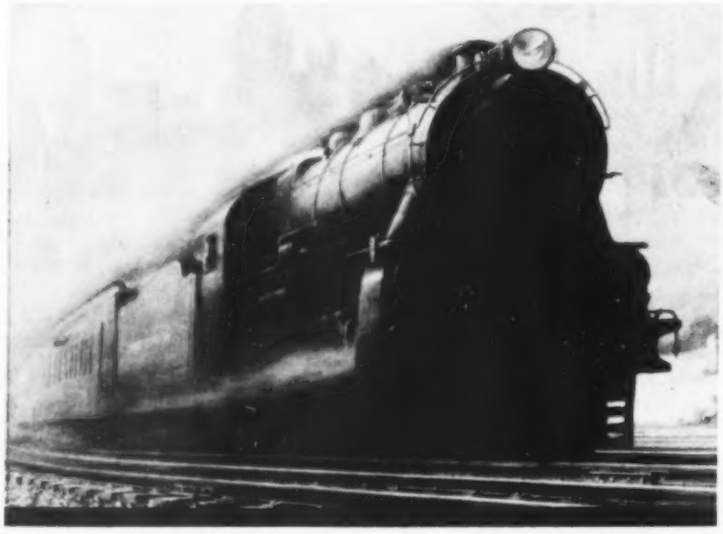


A clear track . . .

GIVE your salesman a clear track to the man he wants to sell . . . help him get in to see that buyer . . . make your products and your firm better known in advance of his call . . . by use of regular advertising in representative trade papers.

And if it's in the lithographic field, the truly fertile market of the graphic arts industry, you can reach the most buyers direct at lowest cost by advertising in

MODERN LITHOGRAPHY

254 WEST 31st STREET NEW YORK, N. Y.

Tale Ends

WE UNDERSTAND the Eastern Lithographers' Association is distributing 1000 more copies of Roger Stephens' *Litho Media* to as many advertisers this month. This guy Stephens is sure doing his share to put lithography on the map. If there were an honorary title in this industry, like Lithography's Man of the Year, we'd nominate him. Barring that, we shall have to be content with calling him Rollicking Roger, the Rabid Rajpoot of the Ramparts We Watch.

* * *

The Lithographic Technical Foundation, New York, has just issued its catalog of classroom courses for the fall and winter school terms. The list includes courses in all phases of lithographic operation and we urge you to write for your copy today. Plan to send your key men back to school this winter, and take a course yourself. What with the way things are these days, you don't know what might happen to some of your personnel during the coming year. Be prepared.

* * *

That preview of the Living Lithography Exhibition on page 39 of this issue will be reprinted and distributed throughout October at the Philadelphia Art Alliance, scene of the show. If you'd like some copies to send to your customers, to give 'em an idea of the strides the industry has made in recent years, write in. There will be approximately 50,000 distributed at Philadelphia and some left over for you if you say the word.

* * *

Some time why don't you take about two minutes and sit down and write us a letter? We'd like to hear from you, what's doing with you, how you like M.L., what suggestions you have, etc. Might provide just the chance you've been looking for to let off a little steam. It'd do us good, too, to hear from one of our readers.

Here's Real News!

REPROLITH PANCHROMATIC

YOU will find in this new Agfa film an unprecedented concentration of technical features. Consider, for example:

1. **Balanced sensitivity to all colors.**
2. **Maximum contrast.**
3. **Greatest resolving power.**
4. **Extreme latitude in development.**
5. **Special lavender anti-halation protection.**
6. **Safety Base.**
7. **Total film thickness about .006 inch.**
8. **Dependable uniformity.**

Agfa Reprolith Panchromatic has been designed to expedite your handling of colored copy in the most efficient manner. Its economical advantages make it a film you can't afford to be without.

Agfa Ansco, Binghamton, N. Y. Made in U. S. A.

Agfa

A HARRIS SERVICE

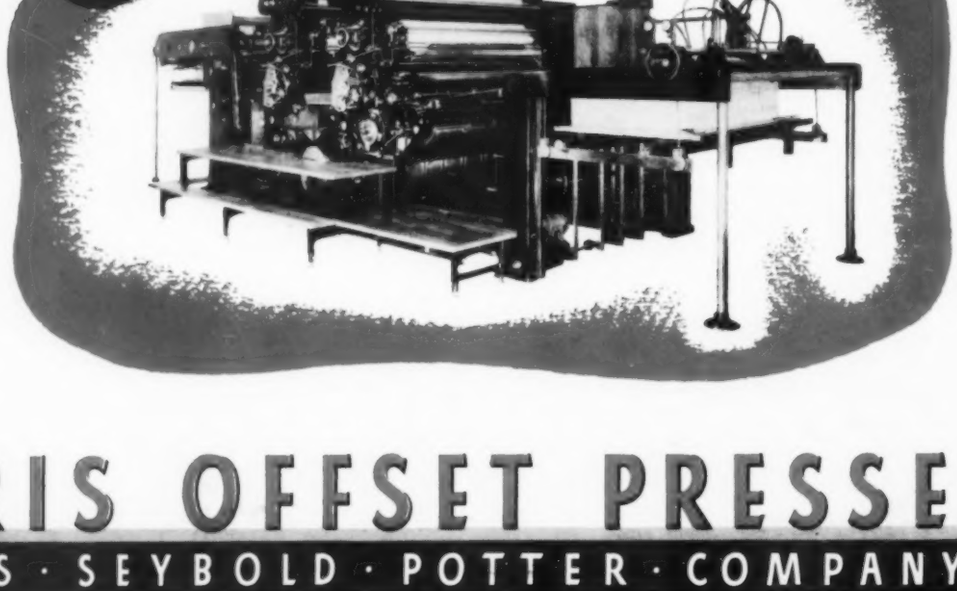
that Industry does not buy

• The Harris Research Laboratories have worked unceasingly toward the standardization of chemicals for lithography and welcome the discussion of lithographers' problems.

The success achieved by the Harris Laboratories has provided the lithographic industry with a value that cannot be priced. Today, with all the modern advantages of Harris Press equipment, this chemical standardization gives to lithographers still another advantage—the certainty of uniform high quality in plates.

Harris research in chemicals parallels Harris press engineering development and modernization program, as well as the Harris nation-wide service to pressrooms, to give lithographers a more complete service.

Harris Services to the lithographic field are real contributions to Offset progress.



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